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Jonathan Edwards: then and
now



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Jonathan Edwards

Then and Now

A Satirical Study in Predestination



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by Wm. Boyd Duff

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by

Wm. Boyd Duff

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CHAPTER I

Prologue

TO THE READER who notes the rather slim proportions of the present volume, it may appear that the sub-title should have been reversed to read "Now and Then." The covers would better fit random sketches of incidents in the life of the Puritan philosopher than a serious and comprehensive biography. Be assured that this booklet falls in neither category.

Now and again Jonathan Edwards becomes the subject of books and articles. Some justify their writing by unearthing interesting but minor happenings in his career. A greater number concentrate upon tracing his influence in the doctrinal controversies of eighteenth century New England. Almost all hasten to assure us that, no matter how outstanding his misdirected genius, his influence has long since been obliterated and hardly an eddy stirs in the currents of modern life. It is the intent of the present treatise to attack that thesis.

As in any serious study of a character, the outlines of his career will be followed in chronological sequence. This is called for by a rather widespread unfamiliarity on the part of the reading public. However, the study will not be confined to his life and death, but will attempt to appraise influences present though latent. It may not even stop with past and present but may endeavor to prophesy the future. In addition to "then and now" it will seek to say "when and how." If the reader so desires, he is permitted to treat the two concluding words of the preceding sentence as an expletive.

The term "unearthing" was employed above to describe the literary handling which has been accorded Edwards. That he has been buried deep, there is no doubt. One is reminded of the legend that is told of Oran, a disciple of Columba, the apostle of Scotland. During an absence of Columba, Oran sickened and died. Upon Columba's return he was led to the fresh grave of his follower. Quickly determining to employ miraculous power, he commanded that Oran be disinterred. As the shovels lifted the clods, Oran sneezed, shook the dust from his features and opened his eyes. The astonished disciples, not waiting to help him to his feet, began to ply their reviving companion with questions. Oran gasped and uttered the amazing words, "There is no hell." Upon hearing this cheerful heresy, Columba is said to have given the stern order that he be reburied at once and the recumbant form was in a few mo-

ments again covered with clods. This anecdote apparently foreign to the subject matter at hand is rehearsed simply to permit the observation that the frequent reburials of Edwards are due not to heresy but to his orthodoxy. The heterodox have hands even more willing than those of the conservatives for digging graves.

Every biographer claims that he has adopted new and unusual methods in portraying the character of his subject. Some employ broad strokes of generalization, others the fine lines of detailed delineation. Of no small importance is the matter of background. In the case of Edwards this presents a difficult problem. All students, friendly or hostile, agree that Edwards was unique among his contemporaries. His doctrinal enemies continually characterize him as a relic of seventeenth century Puritanism unfortunately born into the succeeding eighteenth to block and retard the flow of liberal religion. A more friendly judgment will likewise conclude that he was not a man of his time. Certainly it would be dignifying beyond reason to name as his antagonists the shallow deists of his day with whom he crossed swords. He fought with the principalities and powers of the future. This fact will justify the painting in of a timeless background.

The elimination of the time barrier will be especially helpful, since it is proposed to use comparison as a method of character delineation. It has been proverbially said that comparisons are odious. On occasion, however, they may prove to be melodious, bringing out hidden harmony and contrast. When the first excess profits tax was enacted in World War I days, considerable difficulty was encountered in determining exactly what profits could be termed excess for any particular company. No mathematical formula could be invented which would harmonize the intricacies hidden behind the balance sheets, distinguish between normal and abnormal circumstances, and afford equal and equitable treatment to all. Accordingly a system was devised whereby there were used what were known as "comparatives." Corporations were ranged in accordance with various industries and in line with particular economic situations. Accordingly, when special assessment was claimed, the applicant company was judged by comparison with its peers in trade, location and other circumstances. If the determination of economic status and financial condition of a corporation is too difficult to be solved by direct approach, how much more justified is the use of comparison in delineating the more intricate details of the character and personality of a genius.

Jonathan Edwards has been awarded jointly with Benjamin Franklin the title of the keenest minds of the colonial era. Appreciation of Franklin's genius has not always attained its proper volume, but it has ever been substantial. On the contrary, Edwards remains a shadowy character, to some unknown, to others grotesquely dis-

torted. Even the supposedly dispassionate Encyclopaedia Britannica fumes as it proceeds to blacken his memory. It is the purpose of this small book to attempt to correct the impression that Edwards should be dismissed as merely a synonym of hell-fire and the antonym of Jukes or Kallikak. For that reason we shall in our progress through this volume not tarry long in noncontroversial fields.

In large measure it is possible to plot the line of Edwards' life story by brief quotations from his own writings and other original sources such as "The Life and Character of the Late Reverend, Learned and Pious Jonathan Edwards, President of the College of New Jersey," by Samuel Hopkins. That short biography written by a disciple within seven years after Edwards' death might be termed his Gospel. It would not be amiss to conclude that generally speaking its testimony is true. Certainly Hopkins' veneration was no more extreme than the disdain which many later writers have exhibited. It would be difficult to find a biography written within the past century which does not exhibit some hostility toward Edwards or toward his philosophy and theology. Perhaps it would be too much to expect to find a "love me, love my dogma" approach. Such can rarely be achieved save in an autobiography. However, it is probably high time, when two centuries and a year have now elapsed since his death in 1758, that some one with a degree of friendliness to his beliefs should endeavor to portray Edwards' life. That is not to say that the project should be uncritical. However, criticism as a necessary ingredient may for a change be turned in the opposite direction.

In such criticism by way of equalization an endeavor will be made to adopt the same general attitude toward the tenets and idols of the censors of Edwards as they have exhibited toward him and his doctrines. We recall Oliver Wendell Holmes' words: "Edwards' system seems, in the light of today, to the last degree barbaric, mechanical, materialistic, pessimistic. If he had lived a hundred years later and breathed the air of freedom, he could not have written with such old-world barbarism as we find in his volcanic sermons."¹ Since the adoption of an attitude of like degree of vehemence will of necessity involve us in disparagement and satire, we shall run the risk of being considered narrow-minded and illiberal. We shall also strive to appropriate Edwards' own point of view not only in quoted passages but in all matters our approach and assessment will be in exact accord with what we know he would have said. Thus we shall likewise run the risk of being thought antiquated. However, if in spite of the handicap of carrying these weights we shall finish our course, we shall have vindicated Edwards' philosophy indeed.

One of the most common comments found in modern biographies is the expression of wonder and longing to ascertain the heights

to which his genius would have flown, if he had been born in a better day and had not been bogged down by the incubus of his outworn creed. Regret has been expressed that his background was pre-Darwinian. Even to many of the cloth the distinction between the Darwinian era and the pre-Darwinian is more significant than that between A. D. and B. C. As mentioned above the present pamphlet is being published approximately two hundred years after the death of Edwards in 1758. The reference to the Darwinian era recalls that the year 1958 was the one hundredth anniversary of the presentation of Darwin's theory of evolution in an essay read to the Linnaean Society on July 1, 1858. On November 24, 1859, his *Origin of Species* was first published. Possibly this coincidence may presage a clash in future pages. Also the year 1959 marks the four hundred and fiftieth anniversary of the birth of John Calvin, who cannot be left unmentioned in any discussion of the present character. It has been claimed of almost every book printed that it is timely and provocative. The foregoing references should insure the timeliness of this volume. We shall require little more time to assemble the provocation.

There is a phrase in legal Latin — *nunc pro tunc* — which enables the law in some instances to bridge a gap in time — to treat an act performed now as having been accomplished then. Possibly we may reverse the expression and bring the man who then was to the philosophy and culture which now prevail. The biographers mentioned above would prefer a resurrection of Edwards' sheer intellect unaccompanied by the mental conclusions which he reached in his lifetime. To do so would be impossible. His philosophy was so ingrained in his nature that separation would be difficult. At any rate modern psychologists tell us that past experience is part and parcel of personality. Moreover, it would be easier and more interesting to present him as he was. His writings reveal clearly his point of view on all the continuing problems of philosophy. A comparison of present thought and modern discovery with his philosophy should reveal readily the reaction of one upon the other. Would our present light dissipate his primitive notions? Or is it possible that current thought might be jarred by the impact of Edwards' genius? It is hoped that before our study is completed, an answer to this question will be found.

CHAPTER II

Heredity

ALMOST A CENTURY ago when New England genealogical research was still in its first flower, James Savage, following an even earlier work of Farmer, published his *New England Genealogical Dictionary*. Therein he purported to compress in four small volumes the names and brief descriptions of the original settlers and of their descendants to the third generation. In order to accomplish this feat he fixed upon a system of abbreviations, concerning which he stated that "By the number of more or less imperfect words . . . very great saving of space was expected." Inasmuch as Jonathan Edwards himself in his day devised a species of shorthand, as did also Benjamin Franklin, it would not be inappropriate if we sought to save time and space by copying fragments of the entries in Savage's Dictionary relative to Edwards' American ancestors, at the expense perhaps of some exasperation on the part of readers. To a generation bred on cross word puzzles this should not prove a too perplexing assignment.

The family tree running back to the first immigrants included the surnames Edwards, Tucker, Tuttle, Stoddard, Warham, and Downing. Savage disposes of the great-grandfather William Edwards by this brief notice — "William, Hartford 1639, but not freem. bef. 1658; he was brot. in childhood, says the fam. tradit. by his mo. Ann, w. of James Cole, m. Agnes, wid. of William Spencer, had only ch. Richard, b. May 1647." Of the grandfather Richard Edwards it is said, "Richard, Hartford, only ch. of first William, m. 19 Nov. 1667, Eliz. d. of William Tuttle of New Haven, . . ." After listing offspring including Timothy, born 14 May 1669, Savage observed that Richard Edwards "was a very valu. cit. and d. 20 May 1713." The life of Jonathan's father, Rev. Timothy Edwards is summarized as follows: "Timothy, min. of Windsor, H. C. 1691, s. of Richard bef. ment. m. 6 Nov. 1694, Esther d. of Rev. Solomon Stoddard of Northampton, had eleven ch. ord. 1698, d. 27 Jan. 1758, less than two mos. bef. his s. Jonathan, the disting. theolog. b. 5 Oct. 1703, Presid. of N. J. Coll."

Possibly the foregoing paragraph would constitute a valid warrant for reverting to longhand. It has been observed that Jonathan's father, Timothy Edwards, was a minister at Windsor, Connecticut. Jonathan's mother, Esther, was a daughter of Rev. Solomon Stoddard, minister at Northampton, Massachusetts. This maternal grand-

father was the son of Anthony Stoddard, a linen draper of Boston, and his wife, Mary Downing, who was a niece of Governor Winthrop, and a sister of George Downing, who had been created a baronet by Charles II.

Jonathan's maternal grandmother, Esther, wife of Rev. Solomon Stoddard, was a daughter of Rev. John Warham, who was a minister at Exeter in County Devon and after his arrival in New England in 1630 held a charge at Windsor, Connecticut, for thirty-five years from 1635 to his death in 1670. Savage notes, however, that for nearly six years preceding his death a dissatisfied party of worshippers had desired the services of a younger preacher. He likewise remarks that the Rev. Mr. Warham was afflicted with melancholy in his latter days and earlier had delivered sermons from notes, but that between these two distinguishing traits of his life no connection was pretended to exist.

Jonathan's paternal grandmother, Elizabeth Tuttle, wife of Richard Edwards, was the daughter of William Tuttle, who had arrived in Boston in 1635, according to tradition from County Northampton. Thereafter he removed to New Haven, where as Savage tells us, he became a man of consequence.

The wife of the immigrant, William Edwards, was Agnes Tucker Spencer, the widow of William Spencer, who had been one of the founders of the Ancient and Honorable Artillery Company of Boston and had been prominent in political councils of both Massachusetts and Connecticut. Agnes Tucker had hailed from County Devon, where one of her brothers had been Mayor of Exeter and another brother Mayor of Barnstaple. After the death of Spencer in Hartford, the widow Agnes, as Savage states, married William Edwards and "so was the happy instrument of diffusing that illustrious name of which Farmer's manuscript says eleven had in 1834 been graduated at New England colleges, six at Yale alone." The statement is reminiscent of the time when being an alumnus of a New England educational institution was deemed indicative of erudition.

An additional link to the ministry is found in the fact that William Edwards' father, that is the great-great-grandfather of Jonathan Edwards, was the Rev. Richard Edwards, a clergyman in London. Of him, little is known, except that his talents tended rather to teaching than to preaching.

It is a rather curious circumstance that a prominent British theologian and religious writer also bore the name Jonathan Edwards. Whether he was related to the Connecticut Edwards family has not been ascertained. His life span was from 1629 to 1712. He became Principal and subsequently Vice Chancellor of Jesus College, Oxford, and held the post of Treasurer of Llandaff. He was notable as a contraversionalist and his writings were directed against Socinianism and Antinomianism. It was stated that Socinus was

treated by him not as a heretic, but as the founder of new religion like Mahomet. Doubtless then as now this approach proved irritating to certain liberals, who delight to be termed unorthodox Christians, but resent being informed that they do not belong at all. Whether he was a remote cousin or of no kinship, it is quite possible that the Connecticut baby may have been named Jonathan on his account. A further coincidence lies in the fact that the British Jonathan published a work on "Original Sin" and his New England namesake entitled one of his most notable volumes, "The Great Christian Doctrine of Original Sin defended; Evidences of its Truth produced, And Arguments to the Contrary answered."

John Fiske in "The Beginnings of New England" indicates that the early settlers were in an overwhelming percentage from that section of England known as East Anglia. So far as information is available respecting the place of origin of Jonathan Edwards' British ancestors, they would not constitute an example favorable to that thesis. Research would verify the natural assumption that the Edwards' family in its paternal line was Welsh. The name falls in the same general class as Johns, Thomas, James, Richards, and other Christian names, which with the prefix ap created so great a number of the surnames of Wales. It would not be inappropriate to think that the greatest Puritan philosopher was Celtic in paternal ancestry, when we recall that the greatest Puritan politician, Cromwell, was also partly of Cymric extraction, his great grandfather having discarded the name Williams for the surname Cromwell. The Welsh have not been backward in laying claim to Jonathan Edwards. In a work entitled "Notable Welshmen" he is referred to as the renowned American theologian. The statement is made, "His great great grandfather the Rev. Richard Edwards was a clergyman in London in the days of Queen Elizabeth. Of what county in Wales he hailed is unknown." The article concludes, "America had no greater genius than Jonathan Edwards, and Wales feels glad of his good old stock."

The preceding paragraph was intended to combat the notion that Puritanism was merely a local phenomenon — Anglo-Saxon in origin. On the contrary it was able to flourish a few years later in Ayrshire with as deep roots as it did in East Anglia, although the western lowlands of Scotland a few centuries earlier had been Gaelic speaking. Nonconformist Wales carried on the Puritan tradition with greater fidelity than any part of England proper. The observation is made with the desire to correct the idea that Puritanism, a word almost synonymous with Christianity, could have a narrow place in time and space. While it may be extreme to identify Christianity exclusively with Puritanism, the admission must be made that Puritanism represents Christianity at its norm.

In almost every study of eugenics during the past century

Edwards has been listed as Exhibit A. Possibly the most recent instance to attain wide publicity was a popular scientific work, which some thirty-three years ago undertook to catalogue the fruit of the family tree.¹ Considerable space was devoted to the legacy of greatness which had been bestowed upon succeeding generations by the Edwards family. There was listed again the oft quoted inventory of Jonathan Edwards' progeny — 12 college presidents, 265 college graduates, 65 college professors, 60 physicians, 100 clergymen, 75 army officers, 60 prominent authors, 100 lawyers, 30 judges, 80 public officers — state governors, city mayors, and state officials — 3 congressmen, 2 United States senators, and 1 Vice President of the United States. Doubtless the figures have not been brought down to date. In making this case for eugenics, it is surprising that the author of that work, possibly through lack of thorough genealogical study, took as the outstanding matrix of this family excellence a grandmother of Edwards, who happened to be the only one of his forebears charged with mental deficiency. Allowing for the fact that derangement frequently dispels those inhibitions which in normal minds hide brilliance, the selection was a curious one. Nevertheless, that author should not be unduly censured for a mistake. Assertions equally far from the mark are the common characteristic of most popular scientific literature now as then.

It is interesting in comparing the genealogical accounts given in the various biographies of Edwards to note what prominence is bestowed upon the different lines of descent. Samuel Hopkins, who lived with the Edwards family for a number of years, places emphasis upon the great-grandmother Agnes Tucker, whose brothers had been mayors of Barnstable and Exeter. In so doing he probably repeated the appraisal of the Edwards family itself. They looked with pride upon those who in old England ruled cities in the golden age of the Puritan ascendancy.

It is quite significant that Edwards was by birth and ancestry a product of Connecticut Colony. Few of his forebears had tarried long in Massachusetts. They represented the first outpouring of the pioneer spirit from the coast settlements on the Bay. As such they might be compared with the virgin oil or first wine as distinguished from the residue which remained in the press. Just as the Bay colonists may have boasted that God sifted the population of England to find a choice wheat, so the Connecticut settlers in turn represented a refined edition of the mother colony. This is not an idle vaunt that the nutmeg is of greater savor than the cod. It has been asserted that at the outset the folk of Connecticut had less of the pharisaical strictness that is said to have characterized the Bay Colony of the seventeenth century. However that may be, it is true beyond argument that Connecticut in the eighteenth and nineteenth centuries escaped to some degree the Sadducaic blight which spread over

Massachusetts in those times.

The statement has been made that by 1640 the influx of settlers into New England largely ceased, since the brighter prospects for the Puritans at home, in the words of Winthrop, "caused all men to stay in England in expectation of a new world." Some authorities intimate that immigration dried up to such an extent that for a century and a half the only increment from without was possibly a few sailors who failed to return to ship. This probably represents an exaggerated effort to confine the population to the passenger lists of the Mayflower and the Arbella and its sister ships of the Winthrop fleet. It is undoubtedly true that New England for good or ill escaped in some degree the mass immigration that flooded New York, Pennsylvania, and the southern colonies. However, there must have been a continuous and substantial influx. We are not referring to the immigration of the nineteenth century, which made of Boston an Irish city and, strange to relate, tended to preserve some of the puritanical characteristics of the seventeenth century. Attention is directed rather to an immigration during the seventeenth and eighteenth centuries of persons and ideas inimical to all aspects of the puritan philosophy.

It is interesting to note how many of the leading names in society and letters in Boston may be traced to an origin more recent than the Puritan settlements. To support the statement that standing in Boston society was in no way based upon the blood of the first settlers, an author called to witness the roll of the Ancient and Honorable Artillery Company, which represented the elite of 1637 and pointed out that none of the names listed could be found in the so called high society of the modern day.² As elsewhere, a common grist having acquired some assets and a vocabulary and having cultivated a peculiar accent soon became the upper crust. That is not to say that the inhabitants of Beacon Hill and Back Bay could not point to Puritans among their ancestors. However, it is evident that an influential element in the development of liberal New England can be traced to campfollowers lately arrived who imported strange opinions. Puritanism was transplanted to the New England plantations and early took root there as in a native soil. New England liberalism on the other hand was a vine which, while it put forth its leaves there could be traced by its roots to the other hemisphere. Thus it was that among the self-styled Brahmins the pariah strain was dominant.

Possibly in discussing the heredity of a Puritan one should inquire how the Puritans themselves regarded genealogy. It is evident that in seventeenth century Britain the Puritan party by any test of weighted averages represented a higher order in birth and social station than its adversaries. The gentry of those days had not yet acquired a mellow lustre. The old nobility and their tenants in

chief had in large measure been exterminated in the Wars of the Roses. The Tudor new rich and the old poor that attended them made up the Cavalier party. This explains why, even with the interest inspired by the pageantry of Williamsburg, the Old Dominion can never hope to overtake New England in the genealogical research race.

Thus there was found among the Puritans of New England a basis for concern in family history. We find an original settler like Thomas Miner of New London and Stonington writing to England to secure his pedigree. On the other hand, there were religious influences among the Puritans which tended to damp that interest. This point of view, which was prevalent in Scotland as in New England, is well illustrated by the words of Robert Boyd of Trochrig, who was professor at the University of Saumer, France, and later at the University of Glasgow. He had been obliged at the time of his marriage in France to secure in 1609 a borebriefe or public attestation of his lineage. Although this document showed his descent from a number of the most ancient houses of the west of Scotland, he expressed his disdain, “. . . so far am I from being lift up or fond of ambition, or affecting any little glory from those kind of things, that I very well know that nothing comes down to me by my carnall descent but pain and shame, nothing save the divine wrath and curse, and unless I be born again of the water and the Spirit, it had been much better I had never been born at all.”³

One may be at a loss in casting about for some justification for having consumed several pages of this brief biography with genealogical data and discussion. An excuse may be pleaded however lamely, that biography is not alone in this preoccupation with ancestral research. There is a science which takes itself seriously, yet if we may judge by the manner in which it is taught, it consists almost entirely of peering up ancestral trees. Text-book and museum exhibit would indicate that biology's primary concern is to trace and retrace pedigrees of man and beast. Not that such inquiry is inappropriate, but when there exists so great disparity between the time so spent and that employed in practical research, one may question whether the proportions are proper. This feature may reveal why it lags at such distance behind physics and chemistry in the field of discovery and why biology has acquired the title — the backward science.

CHAPTER III

Environment

TO HAVE BEEN BORN in the year 1703 in a parsonage in the village of Windsor in Connecticut Colony would in the minds of many hardly constitute an auspicious nativity for a philosopher. Without resolving the question it may be observed that some advance the proposition that nothing great and good has ever been accomplished save by sons of the manse. To others the achievements of ministers' sons constitute the strongest argument for celibacy of the clergy.

It is generally believed that the time and place represented an intense degree of narrowness and bigotry. The popular mind knows only three incidents in the history of colonial New England — the disembarkation from the Mayflower at Plymouth Rock — the first Thanksgiving — and the Salem Witch Trials. Jonathan Edwards saw the light of day only eleven years after the termination of the last mentioned proceedings. Lecky in a number of his works undertook to list the tens of thousands in various countries and provinces who fell victim to the Mosaic command — "Thou shalt not suffer a witch to live." It is rather singular that of those hundreds of thousands, if the figures be correct, the nineteen or twenty who were hanged in New England achieved the greatest publicity, overshadowing even the burning of the Maid of Orleans. It may be observed, however, despite Lecky's lament, that on the whole the command of the Levitical law, if universally obeyed, would have saved more lives than it destroyed. Throughout the centuries for everyone slain on the false accusation of witchcraft, a hundredfold of that number had been done to death at wizardry's command wherever magic held sway in early paganism or more recent heathendom.

Though it may appear an obvious digression, it is possible that a pursuit of this topic may afford us an introductory insight into the philosophical environment which surrounded the youthful Edwards, formed the background for his generation, and which still has not faded from the present scene. We can forego an examination of the social aspects of colonial Connecticut, which many would consider indispensable on the subject of environment. Social studies, now largely overemphasized in historical and biographical research, will not retard us. The reason for introducing the topic of witchcraft at this time is to point out a latent but actual connection with our theme. It is not too strained a comparison to affirm that in a certain degree Jonathan Edwards in the first half of the eighteenth

century thundered against errors similar in a real sense to those which Cotton Mather thought he was overcoming in the last half of the seventeenth.

Recent investigations have changed our conceptions of what witchcraft actually was.¹ It had been assumed that it amounted merely to a kind of heresy, a forbidden interest in weird matters, the suspicion of which occasioned the leveling of false accusations against ancient and solitary females. This was doubtless a proper appraisal in numerous incidents. However, it is now accepted that witchcraft and demonology represented a resurgence of the old nature religions, which had not been entirely eradicated from their ancient haunts in the British Isles and the European mainland. Rites and tenets, probably pre-celtic in origin, had managed to survive succeeding waves of invading races and religions. Conversion to Christianity had sometimes been rapid but often incomplete. During the dark ages and later medieval times Christianity had touched the populace lightly in many districts. The ancient cult retained a hold on the masses. There is evidence that in certain areas there existed congregations and councils of the old religion almost as well organized as their counterparts in the churches. In the Christian mind the horned god of the nature religion became identified with the devil.

It is basic to orthodox Christianity that the Creator is all powerful and that opposition to him merely exists at his sufferance. Demonology, on the other hand, presupposed that this opposition possessed an actual dominion and an independent power, to which allegiance might be justified. It may be remarked that Christianity is neither monistic nor dualistic. The doctrine of creation permits the complete sovereignty of God and at the same time the existence of entities apart from and dissimilar from Him. Demonology assumes a dualism, akin to the struggle between the hostile and benign nature gods.

In Edwards' lifetime demonology had vanished, but some of its essential characteristics were being transferred to the new theology which was creeping into the New England churches. The course of this invasion may be easily discerned. Calvinism insisted upon the complete sovereignty of God. Departing some distance from that position one found Arminianism, which allowed spheres of secession from that sovereignty. Further removed was Socinianism, which merged into Deism. And Deism, when it is finished, brings forth pure Naturalism or Materialism, as time has amply demonstrated. Edwards' struggles were directed against the early stages of this devolution, against those who claimed for humanity the power to challenge the Divine Decrees and assumed in some spheres the possibility of coexistence of dominions.

The parallel drawn is not too far-fetched. As the prophet said,

"Rebellion is as the sin of witchcraft."² By reversing the equation it is apparent that witchcraft was rebellion and one of other like encroachments upon the sovereignty of God. Edwards therefore was conducting a campaign similar to that of Mather, but with more substantial justification. It is worthy of comment that liberalism itself recognizes the analogy, since it invariably labels any attack by conservatives upon it a witchhunt.

The analogy is better understood when it is realized that the early eighteenth century brought about a rather sudden change in the popular attitude toward both religious and natural phenomena. The animism which peopled the woods with elves and attributed every occurrence to spiritual factors took on an impersonal aspect. That is not to pretend that the individual initiates of the black art became the novices of the new philosophy and the new theology. But there was a sudden transformation, indeed a metamorphosis, in the thought of the times. The new philosophy and theology were as truly the successors of the old nature religion as chemistry was the offspring of alchemy. Pan was not dead; he had merely pulled in his horns. Nature was in effect still worshipped, although its power lay not in embodied spirits but in certain material elements possessing almost vital forces. In effect there was a broadening of the violation of the second commandment. In place of attributing power to particular rocks and logs, hewn, fashioned, and personalized, the power was transferred to all trees and rocks — in fact to nature at large and impersonalized. Idolatry remained but its homage was to objects wholly inanimate.

This same trend toward impersonalization could be found in various aspects of religious worship. As an illustration we may note a verse of the 90th Psalm in the metrical version of Francis Rous of the seventeenth century:

"As with an overflowing flood Thou carriest them away.

They like a sleep are — like the grass that grows at morn are they."

In the eighteenth century Isaac Watts came upon the scene and undertook to improve upon the psalm book. He rendered the verse—

"Time as an ever rolling stream bears all its sons away.

They fly forgotten as a dream dies at the opening day."

The scriptural concept of Jehovah not only as the creator but also as the destroyer was replaced by an impersonal element — time. Deity and nature were divorced. Watts' effort is not as good poetry as that of Rous, and furthermore it represents a cheap substitute for a fundamental concept of both Judaism and Christianity.

It would be interesting to digress further afield to trace the progress of this concept of impersonal resident power in matter. The medieval trio — sulphur, the principle of inflammability — mercury, the principle of volatility — salt, the principle of fixity, were eagerly

seized upon and expanded. The most noteworthy of these substances was the assumed phlogiston, which supplanted sulphur and became the element productive of heat and fire. It was conceived of as a real substance, so widespread in nature that the common air was charged with large quantities of it. This concept ruled the scientific mind for a large part of the eighteenth century. Joseph Priestly owes a great degree of his fame to the fact that he was the diehard upholder of the phlogiston theory. Similarly we find Erasmus Darwin accounting for the specific characteristics of the fauna by the principle of animality.

The notion that all properties in matter were to be traced to the presence of special elements or principles gave rise to a species of cake mix formula. Just as the various ingredients, butter, flour, sugar are said to account for richness, texture, and taste in the baker's product, so all the properties that characterize various substances may be deduced from their constituent elements. The theory may have been of value in explaining grosser compounds and mechanical mixtures, but it was obviously deceptive, if employed to portray the basic atomic constitution of matter.

Without pursuing the topic further it may be recalled that by the turn of the century Lavoisier had given phlogiston its death blow. Nevertheless, the concept of the presence of resident forces in matter continued as the ideal of the scientific mind. In that source was to be found causality and all phenomena in the cosmos were to be ascribed to it. Newton with his principle of gravity and the attraction and repulsion of material bodies had given hope to those who longed for a fully mechanized universe. It may be remarked that it is curious how little the average student knows of Newton. He is only aware of the fact that the second apple brought light into the world, whether or not the first apple introduced sin. The most salient feature of Newton's life is that he was preeminently a religious enthusiast. But that must not be told in Gath, for in educational circles such a background for a scientific hero would be intolerable.

The mechanistic universe limped along through the eighteenth century and the first half of the nineteenth century under a power presumed to be its own. Explanations designed to support it fell short of their mark. In 1858 Darwinism came upon the scene. Then indeed the evil stars sang together and all the sons of Belial shouted for joy. No longer would the materialist be annoyed by having to champion bizarre solutions. Everything just developed; all happened naturally. The unusual can be explained by the usual and the usual requires no explanation. Long before another century had passed the inadequacy of that mainspring became apparent. The latest generator proposed for making the universe tick is an energy capable of metamorphosis. But of that anon.

To return to the eighteenth century where we left Jonathan

Edwards, we found that his environment weatherwise was in the midst of the gathering clouds of materialism. There was no doubt as to the direction whence the prevailing winds blew. No less certain is the fact that he early set his face against them.

CHAPTER IV

Education

PRESUMABLY Jonathan Edwards' first text-book was the New England Primer. As in later times the art of reading was introduced to infant minds by McGuffey's First Reader or recently by Alice and Jerry, so served the Primer followed by Spiritual Milk for American Babes. The little ones were soon weaned upon the more vigorous diet of the Shorter Catechism of the Westminster Assembly.

The New England Primer did not endeavor to impart the knowledge of words through ignoring their component letters, but was based forthrightly upon the alphabet. From A — "In Adam's fall we sinned all" — to Z — "Zachaeus he did climb the tree, his Lord to see" — the doctrine and narrative of the Scriptures were presented. There is an attractive consistency in imagining that Edwards' literary life began with the tracing of Adam's fall and ended with the delivery to the printer of The Scriptural Doctrine of Original Sin.

While we have little record of Edwards' own elementary education, it is not unreasonable to assume that the manner in which he instilled the precepts in the minds of his own children was a rehearsal of his own indoctrination. Regarding the former Hopkins states:

"He took much pains to instruct them in the principles of religion; in which he made use of the Assembly's Shorter Catechism not merely by taking care that they learned it by heart, but by leading them into an understanding of the doctrines therein taught, by asking them questions on each answer, and explaining it to them. His usual time to attend this was on the evening before the Sabbath. And, as he believed that the Sabbath, or holy time, began at sunset the evening before the day, he ordered his family to finish all their secular business by that time, or before; when they were all called together, and a psalm was sung and prayer attended, as an introduction to the sanctifying the Sabbath."

That Edwards' early education was drawn from observation as well as books is evidenced by his well known essay on Spiders, written at the age of twelve. Curiously this is probably the only literary production of Edwards which has drawn universal acclaim. The occasion of its writing seems to have been that Edwards' father had been in correspondence with some individual in Britain, who can not now be identified. Presumably this correspondence had dealt to some extent with the fauna and flora of the New World. The elder

Edwards had asked the boy to reduce to writing some observations the latter had made regarding flying spiders and to address it to the British friend.

The opening salutation has a ring which is now associated only with the barrister, but is thereby in keeping with that legal acumen which marked Edwards' intellect throughout life.

"May it please your Honour, There are some things that I have happily seen of the wondrous way of the working of the spider. Although everything belonging to this insect is admirable, there are some phenomena relating to them more particularly wonderful . . . But that which is most astonishing, is, that very often appears at the end of these webs, spiders sailing in the air with them; which I have often beheld with wonderment and pleasure and showed to others. And since I have seen these things I have been very conversant with spiders, resolving if possible, to find out the mysteries of these their astonishing works."

With an exactness and originality of observation as well as an accuracy and felicity of description the child natural historian then proceeded to explain how the spider spins the ethereal filament and to indicate with a diagram how it launches itself in flight.

One passage of the essay, which reveals a scientific naivete, is particularly intriguing:

"But yet, Sir, I am assured that the chief end of this faculty, that is given them, is not their recreation, but their destruction; because their destruction is unavoidably the effect of it; and we shall find nothing, that is the continued effect of nature, but what is of the means by which it is brought to pass. But it is impossible, but that the greatest part of the spiders upon the land should, every year, be swept into the ocean. For these spiders never fly, except the weather is fair and the atmosphere dry; but the atmosphere is never clear, neither in this nor any other continent, only when the wind blows from the midland parts, and consequently towards the sea. As here in New England, the fair weather is only when the wind is westerly, the land being on that side, and the ocean on the easterly. And I have never seen any of these spiders flying, but when they have been hastening directly towards the sea. And the time of their flying being so long, even from about the middle of August every sunshiny day, until about the end of October; . . . and they never flying from the sea, but always towards it; must needs get there at last; for it is unreasonable to suppose that they have sense enough to stop themselves when they come near the sea; for then they would have hundreds of times as many spiders upon the seashore, as anywhere else. . . . So that without doubt almost all aerial insects, and also spiders which live upon trees and are made up of them, are at the end of the year swept away into the sea, and buried in the ocean, and leave nothing behind

them but their eggs, for a new stock the next year."

We marvel at the child philosopher puzzling over the mysteries of geographical distribution and at the truly scientific naivete with which he wafts the species to its lemming-like fate in the Atlantic.¹ We also wonder how soon he would attain the doubt, which later he so strongly entertained, that the principle of continuity of forces resident in nature could at all be the explanation of the universe.

It has been suggested that Edwards had the honor of being the first to observe and communicate the flying spider's behavior. This little essay usually calls forth the loudest laments from Edwards' biographers that a mind so admirably fitted for zoological investigations should have been allowed to fritter itself away on theology. Here was an eighteenth century Fabre, who might have become the earliest authority on the Araneae. It must not be assumed that in choosing metaphysics Edwards renounced physical science. On the contrary, he continued to evince the liveliest interest in the latter. In fact he refused to place science and religion in separate intellectual compartments. Such integration is disliked or feared by the generality.

With respect to his boyish religious sentiments we may turn to Edwards' own recital:

"I had a variety of concerns and exercises about my soul from my childhood, but had two more remarkable seasons of awakening before I met with that change by which I was brought to those new dispositions, and that new sense of things that I have since had. The first time was when I was a boy, some years before I went to college, at a time of remarkable awakening in my father's congregation. I was then very much affected for many months, and concerned about the things of religion, and my soul's salvation; and was abundant in duties. I used to pray five times a day in secret, and to spend much time in religious talk with other boys, and used to meet with them to pray together. I experienced I know not what kind of delight in religion. My mind was much engaged in it, and had much self-righteous pleasure, and it was my delight to abound in religious duties. I with some of my school-mates joined together, and built a booth in a swamp, in a very secret and retired place, for a place of prayer. And besides, I had particular secret places of my own in the woods, where I used to retire by myself; and used to be from time to time much affected. My affections seemed to be lively and easily moved, and I seemed to be in my element when I engaged in religious duties."

To those whose recollections of juvenile religious experiences are probably confined to memories of "playing church," these serious prayer meetings of Jonathan and his friends may seem quite remarkable. However, in slightly more mature retrospect Edwards soon recognized their counterfeit character. He went on to say:

“And I am ready to think many are deceived with such affections, and such a kind of delight, as I then had in religion, and mistake it for grace. But in the process of time, my conviction and affections wore off, and I entirely lost all those affections and delights, and left off secret prayer, at least as to any constant performance of it, and returned like a dog to his vomit, and went on in ways of sin.”

Happily thus early the youth discovered the deception inherent in the pharisaical fallacy that Christianity is a life and nothing more.

In contrast Edwards recounts how he came upon religious reality:

“The doctrine of God’s sovereignty has very often appeared, an exceeding pleasant, bright and sweet doctrine to me; and absolute sovereignty is what I love to ascribe to God. But my first conviction was not with this.

“The first that I remember that ever I found anything of that sort of inward, sweet delight in God and divine things, that I have lived much in since, was in reading those words, I Tim. 1. 17. ‘Now unto the King eternal, immortal, invisible, the only wise God, be honour and glory forever and ever, Amen.’ As I read the words, there came into my soul, and was as it were diffused through it, a sense of the glory of the Divine Being, a new sense, quite different from anything I ever experienced before. Never any words of scripture seemed to me as these words did. . . .

“From about that time I began to have a new kind of apprehensions and ideas of Christ, and the work of redemption, and glorious way of salvation by him. I had an inward sweet sense of these things, that at times came into my heart; and my soul was led away in pleasant views and contemplations of them. And my mind was greatly engaged to spend my time in reading and meditating on Christ, and the beauty and excellency of his person, and the lovely way of salvation by free grace in him. I found no books so delightful to me as those that treated of these subjects. Those words, Cant. ii, 1, used to be abundantly with me, I am the Rose of Sharon and the Lily of the valleys. The words seemed to me, sweetly to represent the loveliness and beauty of Jesus Christ. . . .

“Not long after I first began to experience these things, I gave an account to my father of some things that had passed in my mind. I was pretty much affected by the discourse we had together; and when the discourse was ended, I walked abroad alone, in a solitary place in my father’s pasture for contemplation. And as I was walking there, and looked upon the sky and clouds, there came into my mind, so sweet a sense of the glorious majesty and grace of God that I know not how to express — I seemed to see both in a sweet conjunction: majesty and meekness joined together: it was a sweet and gentle, and holy majesty: and also a

majestic meekness; an awful sweetness; a high, and great, and holy gentleness.

"And after this my sense of divine things gradually increased, and became more and more lively and had more of that inward sweetness. The appearance of everything was altered, there seemed to be, as it were a calm, sweet cast, or appearance of divine glory, in almost everything. God's excellency, his wisdom, his purity and love, seemed to appear in everything: in the sun, moon, and stars; in the clouds, and blue sky; in the grass, flowers, trees; in the water, and all nature; which used greatly to fix my mind. I often used to sit and view the moon for a long time; and so in the day-time, spent much time in viewing the clouds and sky, to behold the sweet glory of God in these things; in the meantime singing forth, with a low voice, my contemplations of the Creator and Redeemer."

Edwards did not desire to give the impression that these manifestations of the Deity in the universe overshadowed the light of revelation, for he hastened to state:

"I had then and at other times, the greatest delight in the holy scriptures. of any book whatever. Oftentimes in reading it, every word seemed to touch my heart. I felt a harmony between something in my heart, and those sweet and powerful words. I seemed often to see so much light exhibited by every sentence and such a refreshing ravishing food communicated that I could not get along in reading. Used oftentimes to dwell long on one sentence, to see the wonders contained in it; and yet almost every sentence seemed to be full of wonders."

Regarding Edwards' formal education, Hopkins makes the following statement:

"Mr. Edwards entered Yale college in the year 1716, and received the degree of Bachelor of Arts in September, 1720, a little before he was seventeen years old. He had the character of a sober youth and a good scholar while he was a member of the college. In his second year at college, and thirteenth of his age, he read Locke on the human understanding, with great delight and profit. His uncommon genius, by which he was, as it were by nature, formed for closeness of thought and deep penetration, now began to exercise and discover itself. Taking that book into his hand, upon some occasion not long before his death, he said to some of his select friends, who were then with him, that he was beyond expression entertained and pleased with it, when he read it in his youth at college; that he was as much engaged, and had more satisfaction and pleasure in studying it, than the most greedy miser in gathering up silver and gold from some new discovered treasure.

"Though he made good proficiency in all the arts and sciences,

and had an uncommon taste for Natural Philosophy, which he cultivated to the end of his life, with that justness and accuracy of thought which was almost peculiar to him; yet Moral Philosophy or Divinity was his favourite study. In this he early made great progress."

An incident which occurred at Yale during Edwards' college years has been given considerable emphasis by a number of his biographers.² It was a curious revival of prelacy among the faculty. Some surprise was naturally occasioned that an ecclesiastical system from which as a plague their fathers had fled Old England should reappear in an educational institution in New England. It was suggested that a library of books donated to the college contained the germs of the infection. However, it is unlikely that we need to look to theological treatises for the prime occasion of a conversion to the Anglican establishment. The eighteenth century was hardly a propitious era for the national church in Britain, but as the Government's ecclesiastical arm it had not lost entirely its power and attraction. Forceful efforts to establish its position in New England by Andros in the later years of the seventeenth century had withered when the Governor was overthrown in the revolution of 1689. However, even under the Georges it continued as an instrument of royal preferment. A village curate's lot might be a lowly one often devoid of even that degree of respect which dissenting ministers enjoyed. Yet to every ambitious novice there was let down a ladder up which theoretically one might clamber even to Canterbury. While this prospect of clerical preferment might be remote, the Anglican communion offered to its laity numerous practical opportunities of social and political advancement. The episode at Yale was doubtless a mere incident in this gradual build up.

The controversy evidently had little effect upon Edwards. His mind was too critical to succumb to the thin arguments supporting apostolic succession. Possibly he could foresee that prelacy would be the only heresy to which the Congregational churches would be impervious. Moreover, to one who even surpassed the average Puritan in his view of God as an active and omnipresent King, the concept of an absentee sovereign acting solely through agents in graduated hierarchies was abhorrent. While Edwards was unaffected, the incident was one in the growth of that Toryism, which was to perish in the flames of the American Revolution. Thereafter Anglicanism would not rise again in New England, until years later it offered a haven to many who, having embraced Socinianism, were soon disillusioned by the latter's intellectual frailty, but were too proud to return the Congregational meeting houses they had abandoned.

Regarding Edwards' academic progress, Hopkins wrote: "He lived at college near two years after he took his first degree, designing and preparing for the work of the ministry. After which, having

passed the requisite trials, he was licensed to preach the gospel as a candidate." Then followed an eight month interval of preaching which is outside the scope of the present chapter. "In September 1723, he received his degree of Master of Arts; about which time he had invitations from several congregations to come among them in order to his settlement in the work of the ministry; but being chosen tutor at Yale college the next spring, in the year 1724, being in the twenty-first year of his age, he returned to the college and attended the business of tutor there above two years."

This promotion from student body to faculty does not seem to have induced a buoyant mood in the youth who had just attained his majority. On a Saturday night June 6, 1724, Edwards wrote:

"This week has been a remarkable week with me with respect to despondencies, fears, perplexities, multitudes of cares, and distraction of mind; the week I came hither to New Haven, in order to entrance upon the office of the Tutor of the College, I have now abundant reason to be convinced of the troublesomeness and vexation of the world, and that it will never be another kind of world."

Not only did this spell of low spirits continue while he was engaged as tutor, but he encountered the first of a series of physical illnesses which would intermittently buffet him for the balance of his life. "Indeed, I was at sometimes very uneasy, especially towards the latter part of the time of my being at college, till it pleased God in my last year at college, at a time when I was in the midst of many uneasy thoughts about the state of my soul, to seize me with a pleurisy, in which He brought me nigh to the grave, and shook me over the pit of hell."

More particularly he wrote:

"In September, 1725 was taken ill at New Haven; and endeavored to go home to Windsor, was so ill at the North Village that I could go no further; where I lay sick for about a quarter of a year. And in this sickness God was pleased to visit me again with the sweet influences of his Spirit. My mind was greatly engaged there on divine, pleasant contemplations, and longings of soul. I observed that those who watched with me, would often be looking out for the morning, and seemed to wish for it; which brought to my mind those words of the Psalmist, which my soul with sweetness made its own language, My soul waiteth for Lord, more than they that watch for the morning. And when the light of the morning came, and the beams of the sun came in at the windows, it refreshed my soul from one morning to another. It seemed to me to be some image of the sweet light of God's glory."

Returning to the subject of Edwards' academic progress, we shall not rehearse the standard studies that made up the eighteenth century college term, but shall find it more profitable to consider the extracurricular activities which he undertook. He seemed already

to have planned a literary life. His youthful projects were ambitious in their scope. There were four distinct series of manuscript notes. One consisted of notes on natural science. Another entitled "The Mind" was a brief discussion on mental philosophy. These dated from early in his collegiate life and may have been occasioned by his study of Locke and Newton. In the Yale library he had access to one of the few copies of the Principia, which had reached America. The other notebooks entitled "Notes on the Scriptures" and "Miscellanies" were continued throughout his life. Originally some of his notes may have been intended for use in a contemplated treatise on natural philosophy and natural history, which was dropped from an overlaid schedule.

Comment has frequently been made with respect to his unusual ability for observing and accounting for various natural phenomena. Among the articles and corollaries methodically set down there may be noted his discovery that water is a compressible fluid — a fact not otherwise communicated to the world until 1763, that water in freezing loses its specific gravity, his doubts as to the existence of the frigorific particles, by which the physicists of his day commonly explained freezing, his observations on the causes of colors, of the different refrangibility of rays of light, of the growth of trees, of the channels of rivers, of the process of evaporation and numerous other matters which captured his interest.

The following passage written in his sixteenth year has been given special attention by compilers with the remark, "Laplace anticipated":

"It is certain that when God first created Matter, or various Chaoses of Atoms, besides creating the Atoms and giving the whole Chaos its motion, he designed the figure and shape of every Atom and likewise their places; which doubtless was done with infinite wisdom, and with an eye to what should follow from the particular bulk, figure and place of every Atom; and this he so ordered that, without doing anything more, the chaoses of themselves according to the established Laws of Matter, were brought into these various and excellent forms, adapted to every of God's ends, excepting the more excellent works of plants and animals, which it was proper and fit God should have an immediate hand in. So the Atoms of one Chaos were created in such places, of such magnitudes and figures, that the Laws of Nature brought them into this form, fit, in every regard, for them who were to be the inhabitants."

Again under the heading "a self-trained Berkeleian," passages from Edwards' early writings have been quoted to the effect that material existence is merely ideal. The following corollary from his notes is illustrative of that tendency: "It follows from hence, that those beings, which have knowledge and consciousness, are the only

proper and real, and substantial beings: inasmuch as the being of other things is only by these. From hence, we may see the gross mistake of those who think material things the most substantial beings, and spirits most like a shadow; whereas, spirits only are proper substances."

Such passages have occasioned considerable speculation whether Edwards had in some manner acquired a knowledge of the idealism of Berkeley or had arrived at somewhat similar ideas independently. Although Berkeley sojourned in Connecticut for a season, research had revealed no basis for believing that Edwards borrowed the idealism of the Irish bishop or that it was communicated to him in any manner. Wonder as to the source of Edwards' idealistic views may be hardly justified. Their origin could have been spontaneous. Certainly the later appearance of Quimby and Eddy negative the notion that idealism could not vegetate in New England soil.

Probably the most significant of Edwards' youthful observations may be found in a corollary under the heading "Of atoms and of perfectly solid bodies" in his notes on natural science. He first set forth Proposition I: "All bodies whatsoever, except Atoms themselves, must of absolute necessity, be composed of Atoms, or of bodies indiscerptible, that cannot be made less, or whose parts cannot, by any finite force, be separated one from the other." One may wish that modern atomic chatter had clung to the term "indiscerptible" instead of constantly bringing out a rash of new terms for the multitudinous phases of ultimate particles.

From his Proposition Edwards drew his corollaries and in Corollary 16 he concluded:

"Hence we learn, that there is no such thing as Mechanism, if that word is intended to denote that, thereby bodies act, each upon the other, purely and properly by themselves."

Between this forthright denial of the efficacy of resident forces and the mechanistic idea of the rule of fixed laws in the embryonic nebular hypothesis, which was quoted earlier, there is no compatibility. Both are likewise far removed from the idealistic notions which, as indicated above, appear from time to time in his notes. That these youthful writings should show theories diverse and inconsistent is not an occasion for surprise, since such incompatibility of ideas is a usual state of mind even of the mature and the aged. However, we may expect that in the course of Edwards' life-time one or another of these conflicting principles would gain the ascendancy in a keen discriminating intellect. We can look forward confidently to such a culmination.

Wistful wishers have insisted that there was a fourth tendency quite evident in Edwards' thoughts — namely, a leaning toward pantheism. It is strange how common is the inclination to that philosophy and with what ardor any supposed gravitation in that direc-

tion on the part of eminent personalities is published. There comes to mind an article, the title and author of which are forgotten, that concerned the Logia. But when the saying, "Raise the stone and there thou shalt find me, cleave the wood and there am I," was discussed, it is impossible to forget the poignant regret which the author of the article voiced, when he remarked that we are forced to admit that the adage was an exhortation to honest toil rather than an expression justifying belief in pantheistic immanence. It is suggested that further study will show that pantheism's appeal to Edwards was insignificant.

Before ending the list of Edwards' intellectual firsts, we may call attention to the following quotation from his notes on *The Mind*: "If motion be only mental, it seems to follow that there is no difference between real and apparent motion, or that motion is nothing else but the change of position between bodies. And then of two bodies that have their position changed motion may with equal reason be ascribed to either of them and the sun may as properly be said to move as the earth." The suggestion could be made that this was an anticipation of relativity — if that can be counted as an achievement.

In addition to these scientific, philosophical and theological notes which the youthful Edwards assembled, he also set down resolutions and kept a diary. One of his resolutions ran — "Never to speak evil of any except I have some particular call to it." There may be noted the careful exception to the general renunciation of censure-ship, which as a future shepherd of souls he felt called upon to make. Another resolution was to this effect: "I think it best not to allow myself to laugh at the faults, follies and infirmities of others." We glance at the date of this resolve and note that it was April 1st. He thus expressed a disposition to break with the spirit of the day.

Writing in his diary on February 12, 1725 while at Yale, Edwards said: "The very thing I now want, to give me a clear and more immediate view of the perfections and glory of God, is as clear a knowledge of the manner of God's exerting Himself, with respect to spirits and mind, as I have of His operations concerning matter and bodies." We can enter into that wish. Despite the claims of psychology, psychiatry, Freudianism, psychoanalysis and other charlatanry, our knowledge of the mysteries of the mind is as imperfect as that of Edwards' contemporaries. On the other hand, physical discoveries in the two centuries which have intervened should aid us in passing judgment upon his answer to the riddle of the universe.

CHAPTER V

Ministry

EDWARDS' FIRST MINISTERIAL charge filled a short and sweet interval in his college life. Hopkins refers to the fact that he had continued his theological studies for two years following his Arts degree and then proceeds:

"After which, having passed the requisite trials, he was licensed to preach the gospel as a candidate. And being pitched upon, and applied to by a number of ministers in New England, who were instructed to act in behalf of the English Presbyterians at New York, as a fit person to be sent to them, he complied with their request, and went to New York, the beginning of August 1722, and preached there to very good acceptance about eight months. But by reason of the smallness of that society and some special difficulties that attended it, he did not think they were in a capacity to settle a minister, with a rational prospect of answering the good ends proposed. He therefore left them the next spring, and retired to his father's house; where he spent the summer in close study. He was indeed earnestly solicited by the people he had been among at New York, to return to them again; but for the reason just mentioned, he could not think himself in the way of his duty to gratify them."

Edwards thus became one of the few clergymen who declined a New York pastorate. In that city representatives of Protestantism now play a peculiar role. Locally they are content to play a meek third fiddle, but on a national scale their organizations arrogate to themselves a bold precedence.

The particular situation in which Edwards was involved grew out of the fact that a Presbyterian congregation afterwards known as the First Church had been established in 1716. However, several years thereafter a group of its members found themselves in continual controversy with their minister and in 1721 voted to withdraw and form a separate congregation. They secured authority from the Common Council to erect a meeting-house, but the building was not undertaken. They held society meetings in various private houses. After Edwards' departure the group dwindled and shortly disbanded.

The brief association of the young licentiate with this group was most amicable. He was held in high regard, which continued unabated in contrast with his experience in his later pastorate. Concerning his spiritual frame at the time Edwards wrote: "I very

frequently used to retire into a solitary place, on the banks of Hudson's River, at some distance from the city, for contemplation on divine things, and secret converse with God, and had many sweet hours there."

He recounts his departure by boat to New England as follows: "I went from New York to Weathersfield. As I sailed away, I kept sight of the city as long as I could; and when I was out of sight of it, it would affect me much to look that way, with a kind of melancholy mixed with sweetness. . . . At daybreak we went ashore to lodge on Saturday, and there kept Sabbath, where I had a sweet and refreshing season, walking alone in the fields."

With reference to his second ministerial charge Hopkins makes mention of the intervening two years as tutor at Yale and states:

"While he was in this place, he was applied to by the people at Northampton with an invitation to come and settle in the work of the ministry there, with his grandfather Stoddard, who, by reason of his great age, stood in need of assistance. He therefore resigned his tutorship, in September 1726, and accepted of their invitation; and was ordained in work of the ministry at Northampton, colleague with his grandfather Stoddard, February 15, 1727, in the twenty-fourth year of his age, where he continued in the work of the ministry till June 22, 1750, twenty-three years and four months."

The association with his grandfather in the Northampton pulpit did not long continue, since he was left in sole tenure by Stoddard's death in 1729.

Some two years earlier Edwards had obeyed the scriptural injunction that a teaching elder should be the husband of one wife. On July 28, 1727, he married Sarah Pierrepont, the daughter of Rev. James Pierrepont, minister at New Haven. She proved a faithful and competent helpmeet through the balance of life. She was the great-granddaughter of Thomas Hooker, the ecclesiastical leader of the band which had come out from Massachusetts to found the town of Hartford. Of him Cotton Mather had remarked that a certain author, who had written "Of Three Thomas's," meaning Thomas the Apostle, Thomas a'Becket, and Sir Thomas More, "did not a thousandth part so well sort his Thomas's as a New Englander might," since Thomas Hooker would in just balances weigh down two Archbishops and Lord Chancellors.

Sarah Edwards was of the same early Puritan order as her husband, although no degree of consanguinity is noted. However, there was a closer affinity in that both were of Enoch's spiritual posterity. Edwards had alluded to his betrothed as a "young lady in New Haven who is beloved of that Great Being, who made and rules the world." He remarked that she loves to be alone, walking in the fields and groves, and seems to have someone invisible always

conversing with her. Edwards likewise was accustomed to walk with God. It was his common practice to ride two or three miles after dinner to some lonely grove, where he would dismount and walk awhile. It was said that at these times, he generally carried his pen and ink with him, to note any thought that should be suggested, which he would choose to retain and pursue or that promised light on any important subject.

About the year 1734 there occurred a series of conversions in Northampton which were harbingers of the "Great Awakening" that spread over the colonies. Some years later Edwards wrote regarding this revival: "It has been slanderously said and printed of me that I have often said that the Millennium was already begun and that it began at Northampton." Nevertheless, in 1743 he was frank to make the following claim as to the effect of the revival: "Ever since the great work of God, that was wrought here about nine years ago, there has been a great and abiding alteration in this town in many respects. There has been vastly more religion kept up in the town among all sorts of persons, in religious exercises and in common conversation; there has been a great alteration among the youth of the town, with respect to revelry, frolicking, profane and licentious conversation, and lewd songs; and there has also been a great alteration, among both old and young, with regard to tavern haunting."

Among Edwards' sermons during the years of the Great Awakening was one preached at Enfield, which has come to be regarded as the classic instance in all sermonizing of the use of fear of hell as a means of conversion. Accounts of the episode seem to indicate that it was rather efficacious at the time. But since that day liberals have not ceased to writhe in vexation at the words: "The God that holds you over the pit of hell, much as one holds a spider, or some loathsome insect over the fire, abhors you, and is dreadfully provoked, . . ." Could this prophet of doom upon insects and men alike be the same as the wide-eyed inquiring boy who had been "very conversant with spiders?" The resentment which the sermon has occasioned through the centuries is the reaction of hedonists, who are so perplexed and dismayed by the miseries of this life and by death itself that they are resolved that no one shall be permitted even to suggest that there can be agony in the life to come.

While a severity in doctrinal teaching may have become more apparent as Edwards' ministry proceeded, he did not lose that spiritual devotion that characterized his youth. He wrote:

"Once, as I rode out into the woods for my health, anno 1737, and having lighted from horse in a retired place as my manner commonly has been, to walk for divine contemplation and prayer, I had a view that for me was extraordinary, of the glory of the Son of God, as Mediator between God and man, and his wonderful, great, full, pure and sweet grace, and love, and meek and

gentle condescension. This grace, that appeared to me so calm and sweet, appeared great above the heavens. The person of Christ appeared ineffably excellent, with an excellency great enough to swallow up all thought and conception, which continued as near as I can judge about an hour, which kept me, the greater part of the time, in a flood of tears, and weeping aloud. I felt withal, an ardency of soul to be, what I know not otherwise how to express, than to be emptied and annihilated; to lie in the dust, and to be full of Christ alone; to love him with a holy and pure love; to trust in him; to live upon him; to serve and follow him; and to be totally wrapt up in the fulness of Christ; and to be perfectly sanctified and made pure with a divine and heavenly purity. I have several other times had views very much of the same nature and that have had the same effects."

It is evident that Edwards' soul delighted in solitary contemplation. His nature probably required more adjustment on the plane of sociability. It was said:

"He was thought by some who had a slight acquaintance with him, to be stiff and unsociable, but this was owing to want of better acquaintance. He was not a man of many words indeed, and was somewhat reserved among strangers, and those on whose candour and friendship he did not know he could rely. And this was probably owing to two things: First, the strict guard he set over his tongue from his youth, which appears by his Resolutions, taking great care never to use it in any way that might prove mischievous to any; never to sin with his tongue; nor to improve it in any idle, trivial and impertinent talk which in general makes up a great part of the conversation of those who are full of words in all companies . . . Secondly, This was in part the effect of his bodily constitution. He possessed but a comparatively small stock of animal life; his animal spirits were low, and he had not the strength of lungs to spare that would be necessary to make him what would be called, an affable facetious gentleman, in all companies."

Not all of Edwards' visions were characterized by serenity. He wrote:

"And scarce any Thing, among all the Works of Nature was so sweet to me as Thunder and Lightning. Formerly nothing had been so terrible to me. I used to be a Person uncommonly terrified with Thunder: and it used to strike me with Terror, when I saw a Thunder storm rising. But now on the contrary, it rejoiced me. I felt God at the first Appearance of a Thunder storm. And used to take the Opportunity at such Times, to fix myself to view the Clouds and see the Lightnings play, and hear the majestic and awful Voice of God's Thunder which often times was exceeding entertaining, leading me to sweet Contemplations of my great and

glorious GOD. And while I viewed used to spend my Time, as it always seemed natural to me, to sing or chant forth my Meditations to speak my Thoughts in Soliloquies and speak with a singing Voice."

Regarding his bearing as a preacher the following description has been given by Hopkins:

"His appearance in the desk was with good grace, and his delivery easy, natural, and very solemn. He had not a strong loud voice; but appeared with such gravity and solemnity and spake with such distinctness, clearness and precision; his words were so full of ideas, set in such a plain and striking light, that few speakers have been so able to command the attention of an audience as he . . . He made but little motion of his head or hands in the desk; but spake so as to discover the motion of his own heart, which tended in the most natural and effectual manner to move and affect others."

If eighteenth century preaching were to be compared with modern pulpit practice, probably the most notable contrast would be between the lengthy sermons of that day and the almost universal tendency of twentieth century clergy to sidestep that burden through several devices. In those churches where ritualism has managed to infiltrate the problem is quite simple — merely lengthen the liturgy, and a few phrases will suffice for a sermon. In churches not yet so invaded, the expedients are limited to prolonging prayers and stretching out song. Regarding the first it was said of Edwards, "He was not wont, in ordinary cases, to be long in his prayers: an error which, he observed was hurtful to public and social prayer, as it tends rather to damp, than to promote true devotion."

Cantatas, symphonies, sonatas, overtures and all the medley of minstrelsy afford time-consuming exercises which lighten the load of the sermonizer. The unequal clash between the professional musicians and the congregation has — to employ the language of the radio — its humorous overtones. Ministers of music can be trusted to see to it that the choir rather than the congregation becomes hoarse. Even Methodist hymn sings tend to degenerate into solos and special numbers. A revival of congregational singing need not be feared, so long as it is practically stifled with anthems. Even if a congregation be permitted once or twice per service to lift its voice, the organ is available to drown the effort. So far as the congregation is concerned, praise has become an auditory rather than a vocal exercise.

In further comparison of Edwards' preaching with that of today, we may merely mention several pet words and phrases, which Edwards eschewed. In the first place he was never known to have referred to the "Gospel according to Saint Matthew." Hardly any expression is more undignified in the pulpit, involving as it does the misuse of

a generic term as a title. In the second place Edwards never employed the word "Master" in referring to Christ. The popularity of the word among those who use it is often due to the fact that the designation may be shared with Buddha, Confucius, and a score of other soothsayers. It is noteworthy that the last time the title was employed in the scriptures with reference to Christ was when the bewildered Magdalene uttered it without full comprehension of the risen Lord.

Another instance where Edwards and the modern pulpit are at odds on a point of nomenclature is the designation of the Lord's Day. Almost universally the bulletin boards before the entrances of present day churches inform us that Sunday services will be held on Sunday. We enter the edifices and find flocks of urchins trooping to and from Sunday School. The name interlards the sermons and the announcements. It is interesting to note that the term Sunday is found chiefly where Teutonic languages prevail. In Latin lands, where Christianity was originally introduced at a time when it retained its pristine purity, we find a designation signifying the Lord's Day. In Ireland the Gaelic tongue adopted a similar term. It was otherwise when a watered down Christianity was imposed upon the Germanic tribes and upon the Anglo-Saxons. It did not sink in deep enough to eradicate the pagan designation of either the holy day or the other days of the week. The Society of Friends wisely sought to reform the whole calendar and with a healthy hatred of heathenism adopted the term First Day. Edwards and the Puritans preferred the term Sabbath. They felt able to shift the day from the seventh to the first without spilling the name. Whether the Mosaic law of the Sabbath did or did not carry over to the new dispensation is not a matter of consequence in point of nomenclature. If the Judæo-Christian tradition, about which we hear so much today, has any significance, the name was the proper subject of appropriation. There was a time not so remote when the use of the word Sabbath, instead of Sunday, marked the dividing line between the sheep and the goats. Possibly it is still as good a shibboleth as any with which to draw that distinction at the present day. Not only does the use of the term Sabbath avoid any imputation of heliolatry, but in conversation it will be found invaluable as an irritant. The Caledonians in recent years have developed a certain pride in calling themselves Scotsmen rather than Scotch. They explain that Scotch is only a type of whiskey. Let us all remember that Sunday is only a variety of ice cream.

In 1737 there occurred an event which powerfully impressed Edwards' mind. He described it as follows:

"We in this town were, the last Lord's day (March 13th) the spectators, and many of us the subjects of one of the most amazing instances of Divine preservation that perhaps was ever known

in the world. Our meeting house is old and decayed, so that we have been for some time building a new one, which is yet unfinished. It has been observed of late, that the house we have hitherto met in has gradually spread at the bottom; the sills and walls giving way, especially in the foreside, by reason of the weight of timber at the top pressing on the braces, that are inserted into the posts and beams of the house. It has done so more than ordinarily this spring: which seems to have been occasioned by the heaving of the ground, through the extreme frosts of the winter past, and its now settling again on that side which is next the sun, by the spring thaws. By this means the underpinning has been considerably disordered, which people were not sensible of, till the ends of the joists, which bore up the front gallery, were drawn off from the girts on which they rested, by the walls giving way. So that in the midst of the public exercise in the forenoon, soon after the beginning of the sermon, the whole gallery-full of people, with all the seats and timbers, suddenly and without any warning — sunk, and fell down, with the most amazing noise, upon the heads of those that sat under, to the astonishment of the congregation. The house was filled with dolorous shrieking and crying; and nothing else was expected than to find many people dead, or dashed to pieces.

“The gallery, in falling, seemed to break and sink first in the middle; so that those who were upon it were thrown together in heaps before the front door. But the whole was so sudden, that many of those that fell, knew nothing what it was, at the time, that had befallen them. Others in the congregation, thought it had been an amazing clap of thunder. The falling gallery seemed to be broken all to pieces, before it got down; so that some who fell with it, as well as those who were under, were buried in the ruins, and were found pressed under heavy loads of timber, and could do nothing to help themselves.

“But so mysteriously and wonderfully did it come to pass, that every life was preserved; and though many were greatly bruised, and their flesh torn, yet there is not, as I can understand, one bone broken, or so much as put out of joint, among them all. Some who were thought to be almost dead at first, are greatly recovered; and but one young woman, seems yet to remain in dangerous circumstances; by an inward hurt in her breast: but of late there appears more hope of her recovery.

“None can give an account, or conceive by what means people’s lives and limbs should be thus preserved, when so great a multitude were thus imminently exposed. It looked as though it was impossible, but that great numbers must instantly be crushed to death, or dashed to pieces. It seems unreasonable to ascribe it to anything else but the care of Providence, in disposing the motions

of every piece of timber, and the precise place of safety where everyone should sit and fall, when none were in capacity to care for their own preservation. The preservation seems to be most wonderful, with respect to the women and children in the middle alley, under the gallery where it came down first, and with the greatest force, and where there was nothing to break the force of the falling weight.

“Such an event may be a sufficient argument of a Divine providence over the lives of men. We thought ourselves called on to set apart a day to be spent in the solemn worship of God, to humble ourselves under such a rebuke of God upon us, in time of public service in his house, by so dangerous and surprising an accident; and to praise his name for so wonderful, and as it were miraculous, a preservation. The last Wednesday was kept by us to that end; and a mercy, in which the hand of God is so remarkably evident, may be well worthy to affect the hearts of all who hear it.”

Probably the most interesting sentence for our purpose in this narrative is the reference to Providence disposing the motion of every piece of timber and the precise location of each individual. It reveals that Edwards' mind was constantly wrestling with the problem of causation. It is significant that he was eager to learn not only why Providence acted but how Providence acted. He carefully listed the sequence of events, the ancient decayed timbers, the winter frosts, the spring thaws, the uneven settling of the underpinning. Yet he did not ascribe the preservation to a fortunate or even planned concurrence of natural forces. On the other hand, he did not describe it as an intervention of divine power in a mechanized universe. No angel, saint, nor even deity interposed a shield against blind destructive energy. Providence to Edwards had come to mean action more prescient, more continuous, and more comprehensive.

While it was possible for the structure of the old Northampton meetinghouse to break up without serious injury to the assembly, the congregation itself began to show signs of disintegration with grave consequences. The first incident, which revealed a growing hostility between people and preacher, arose when Edwards undertook to censure the youth of the congregation for reading lascivious literature. The hostility did not occur because of any tendency to defend literature of that character. The time had not yet arrived when in the minds of many any printed book, save the scriptures, is sacred and it is ignoble to ban, repress, criticize, or even fail to purchase a book, because it is salacious, blasphemous, or subversive. A certain lack of tact was exhibited by Edwards in not being satisfied with a general condemnation but in insisting upon designating by name not only the principal offenders but also quite remote accessories. The families of the accused naturally resented the incident

and ill will was stored for future manifestation.

Respecting the occasion of the final breach, this has been said: "Another difficulty of a more serious nature, originated from an event to which I have already alluded. The church of Northampton, like the other early churches of New England, was formed on the plan of Strict Communion: in other words, none were admitted to the sacrament of the Lord's Supper, but those who, after due examination were regarded as regenerate persons. Such was the uniform practice of the church from its foundation, during the ministry of Mr. Mather, and for a considerable time after the settlement of Mr. Stoddard, the predecessor of Mr. Edwards . . . Mr. Stoddard publicly avowed this change of his opinions in 1704, when he had been in the ministry at Northampton thirty-two years, and endeavored at that time to introduce a corresponding change in the practice of the church. . . . The first publication of Mr. Stoddard on the subject was entitled "A Sermon on the Lord's Supper" from Exodus xii, 47, 48 printed in the year 1707. In this Sermon he attempted to prove 'That Sanctification is not a necessary qualification to partaking in the Lord's Supper,' and 'That the Lord's Supper is a Converting Ordinance'."

Stoddard had been successful in having the Northampton congregation adopt his liberal practice. Years after it had become the established usage in the community Edwards came to regard it as a patent error. Against militant opposition he urged a return to the earlier customs and formulated his arguments in a tract entitled, "Humble inquiry into the rule of the word of God concerning the qualifications requisite to a compleat standing and full communion in the visible Christian church." Regarding this Edwards wrote, "It is far from a pleasing circumstance of this publication that it is against what my honoured Grandfather strenuously maintained, both from the pulpit and the press. I can truly say on account of this and other considerations, it is what I engage in with greatest reluctance, that I ever undertook any public service in my life. But the state of things with me is so ordered by the sovereign disposal of the great Governor of the world, that my doing this appears to me very necessary, and altogether unavoidable."

Edwards thus showed his ability to reject ancestral concepts which an ideological nepotism so frequently passes on to willing posterity. Probably the most perfect contrast to Edwards in this regard is to be found in Charles Darwin. Despite all the pretense that he had arrived at conclusions on evolution almost unwillingly after protracted and unbiased observations, we can readily discern under this stimulation the eager though covert joy with which he followed in the footsteps of and then scornfully outstripped grandfather Erasmus.

Without pressing for an adjudication of the truth or error in

Edwards' controversy over the terms of admission to the Lord's Supper, we of the present day may express wonder at its being the occasion of a heated and prolonged struggle. How extraordinary that even for social prestige the children of the world should have fought for seats at the table. Now the only time that the sacrament strikes fire or headlines is when some High-Church Anglicans protest participation of dissenting clergymen or when representatives of some close communion group dare to show their colors at an interdenominational church council gathering. There sparks, however, flash only for the moment.

It can hardly be said that the sacrament maintains today in practice the position which it holds in theory. In the Roman Catholic church centuries ago it became something other than a memorial. Also among present day Protestants all the trappings seem to conspire to create some other impression than to call to memory the Last Supper. The Puritans went to the Table. They did not go to an altar rail, neither did they remain seated in pews. They sang the very words that the Disciples sang in the Upper Room:

"I'll of salvation take the cup,
On God's name will I call.
I'll pay my vows now to the Lord
Before his people all."

Today amid organ rumblings church officers trip the aisles as so many waiters.

It is significant that in opposing the unrestricted communion Edwards was endeavoring to weed out a new principle that was the root from which subsequent liberal domination in New England spread. Socinianism in the next century gained control of so many Congregational churches not by the ballots of authentic members but by the votes of townspeople who had an innate enmity toward religion yet had been admitted into the fellowship by an inclusive liberalism.

At length the crisis in the controversy came and the congregation voted Edwards' dismissal by a vote of above two hundred against twenty. While contention between pastor and people was not uncommon in those days, the pulpit rarely had suffered such a one-sided defeat. It would be difficult for some to grasp the exact place of the clergyman in colonial New England. Weak clerical influence in the present day affords no comparison. Possibly the colonial clergy approached more closely to the plane of the lawyer in modern times, whose comparative status in our day can be properly illustrated by quoting the verse:

"Scientists who think they plan better far than others can,
Clergy with and without starch, bishops also plain and arch,
Technicians, chemists, engineers, medical practitioners,
Scholastic sage and artizan, pedagogues who also ran,

All of you must go to school.

Knuckle to a higher rule.

Gather, gather at the feet of the law-trained man."

Needless, to say, this rhyme is not repeated for the glorification of the American Bar. It is merely used for the sake of comparison to show that the colonial clergy reached almost as lofty heights of intellectual esteem as is now attained by the Learned Profession. Edwards, of course, had no legal education, but from the standpoint of doctrine he followed two preceptors who two centuries earlier had studied law respectively at Erfurt and Orleans.¹ Often in his writings he marshalled his arguments with truly legal excellence.

The following is actually a digression, but it is of such surpassing importance that it should not be passed over. It is recognized that the only profession which merits the adjective "learned" has capabilities which are not limited to court practice or legal counsel. There is no field which it may not enter. Lack of specialized knowledge is no bar; superior judgment more than compensates for absence of immediate experience. No scientific treatise, no medical text, no theological exposition, no educational manual is published today that the lawyer could not improve. We speak not from the viewpoint of copyright or libel, but refer rather to the intellectual content of the work itself. That any sermon should be preached, that any lecture should be delivered, that any book on any subject should be printed without their first having been submitted to a lawyer for correction, modification or amplification bespeaks a presumption which should not be encouraged. From the standpoint of professional pride the foregoing may sound a bit thick. However, if the process of comparison be invoked, the statements which seem extravagant will appear most modest. Attention is directed to the blurbs which may be found in almost any issue of the Scientific American. All untoward events from rickets to fizzled rockets are attributed to underpayment of scientists.

The controversy, which had reached its climax in the people's vote for his "dimission from the pastoral office over them," now moved to its denouement in Edwards' Farewell Sermon. A few quotations will suffice to give an inkling of it purport:

"The prophet Jeremiah, (chap. xxv, 3) puts the people in mind how long he had laboured among them in the work of the ministry; From the thirteenth year of Josiah, the son of Amon, king of Judah, even unto this day, (that is, the three and twentieth year,) the word of the Lord came unto me, and I have spoken unto you, rising early and speaking. I am not about to compare myself with the prophet Jeremiah; but in this respect I can say as he did, that I have spoken the word of God to you unto the three and twentieth year, rising early and speaking. It was three and twenty years the 15th day of last February, since I have

laboured in the work of the ministry, in the relation of a pastor to this church and congregation. And though my strength has been weakness, having always laboured under the great infirmity of body, beside my insufficiency for so great a charge, in other respects, yet I have not spared my feeble strength but have exerted it for the good of your souls . . .

"This controversy is now probably brought to an issue between you and me, as to this world; it has issued in the event of the week before last; but it must have another decision at that great day, which certainly will come, when you and I shall meet together before the great judgment seat: and therefore I leave it to that time, and shall say no more about it at present. . . .

"Another thing, that vastly concerns the future prosperity of the town is, that you watch against the encroachments of Error, and particularly of Arminianism, and doctrines of like tendency. . . .

"And let us all remember and never forget, our future solemn meeting, on that Great day of the Lord; the day of infallible and unalterable sentence. Amen."

Some months thereafter in early December, 1750 Edwards received proposals from the church and congregation in Stockbridge, Massachusetts, to become their minister, and about the same time similar proposals from the Commissioners at Boston of the "Society in London, for Propagating the Gospel in New England and the parts adjacent" to become the missionary of the Housatonnucks, or River Indians, a tribe at time located in Stockbridge and its immediate vicinity.

CHAPTER VI

Missionary

IT IS A CURIOUS circumstance that a man who could not have found in New England or elsewhere a congregation intellectually qualified to follow the brilliance of his reasoning, should have stepped from a civilized pulpit to a backwoods mission to stone-age men. We are accustomed to associate that term with skull fragments dug up from the floors of caves and carefully reconstructed to show characteristics as apelike as possible. Probably the only distinctive characteristics possessed by the stone age men of western Massachusetts were high cheek bones and whatever other skeletal features there may be indicative of Mongolian ancestry. It is gathered from Edwards' correspondence that he had opportunities of accepting charges in Scotland. Instead he was moving to the frontier, at that time not far distant, where heathen tribes separated the French and the British colonies and still inspired some apprehension in each.

No one can read his "Memoirs of David Brainerd" without realizing the high esteem in which Edwards held the missionary spirit. At his more advanced age he could not have undertaken the life of an itinerant missionary, which Brainerd, although incapacitated by disease, had carried through. Yet Edwards' post was no sinecure, for there he encountered not only the phlegmatic indifference of his red pupils but also violent obstruction of white opponents whose purposes he crossed.

It is a historical fact that native populations do not readily embrace the religion of their conquerors. The announced aim of the New England plantations had been to make Christians of the aborigines. It must not be thought that this meant the propagating of religion without at the same time instilling civilization. That the function of the missionary is educational as well as evangelical is by no means a modern idea. Back in the middle of the seventeenth century schools had been set up in which agriculture was taught as well as religion. A building had been erected at Harvard College especially for the accommodation of Indian students, but in the absence of their matriculation, it had remained unoccupied. To transform a tribe of huntsmen into staid farmers was a major undertaking. Wandering feet could with difficulty be kept within the narrow fields of agriculture when any excuse for departure beckoned. In a letter of November, 1752, Edwards recorded with lamentations an instance of this tendency:

"Some other things have happened which have much prejudiced the cause of religion among the Indians, and, among other things, the discovery of the famous Tartarian root, described in Chambers' dictionary, called Ginseng, which was found in our woods the last summer, and is since found in the woods in many of the western parts of New England, and in the country of the Six Nations. The traders in Albany have been eager to purchase all, that they could, of the root to send to England; where they make much profit by it. This has occasioned our Indians of all sorts, young and old, to spend abundance of time in wandering about the woods, and sometimes to a great distance in the neglect of public worship, and of their husbandry; and also, in going much to Albany to sell their roots, (which proves worse to them than their going into the woods,) where they are always much in the way of temptation and drunkenness, especially when they had money in their pockets. The consequence is that many of them have laid out their money, which they have got for their roots of Ginseng for rum; wherewith they have intoxicated themselves."

Nevertheless, it would be erroneous to assume that Edwards' missionary efforts were ineffective. Although he never mastered the Indian dialects, he had the services of an interpreter, a young Housatonnuck, who had been educated by Edwards' predecessor. This youth, John Wonwanonpiquomonnt, possibly the only interpreter of that name known to history, is said to have been a man of uncommon talents and attainments as well as sincere piety.

Perhaps modern students of missions would be interested in discovering Edwards' attitude toward the native religious sentiments of the Indians. In the Brainerd Memoirs will be found a number of expressions, doubtless shared by Edwards, which while not in any degree flattering could indicate a slight recognition of some latent merit in the savages' religious concepts. Yet Edwards seems to fall far short of that liberal inclusive attitude which modern missionary experts contend a Christian should exhibit toward other faiths. How unfortunate, indeed, that Edwards came upon the scene so long before the Laymen's Foreign Missions Inquiry rethought missions in the early thirties of the twentieth century and suggested for better or for worse changes in the conduct of missions.

Needless to say, Edwards would have failed to subscribe to the principal tenets of the Inquiry. One can hardly imagine him affirming that "The message of Christianity presents a way of life and thinking, which the Christian conceives, not as his way alone, but as a way for all men, entering without violence the texture of their living and transforming it from within." Edwards was not that sort of "christian." He would scarcely have admitted that "It is clearly not the duty of the Christian missionary to attack the non-Christian systems of religion — it is his primary duty to present in positive

form his conception of the way of life and let it speak for itself." He would surely have stumbled if called upon to repeat the Inquiry's chief tenet, "Sharing is a common search for truth and becomes real only as it becomes mutual, running in both directions, each teaching, each learning, each with the other meeting the unsolved problems of both." If this sentiment had been submitted to Jonathan Edwards, he would probably have rejoined — "From a theological standpoint, no Mohawk, Onohquauga, or Housatonnuck can tell me anything." Possibly in the present day there are also a few who might still draw back from the sharing proposition even with the more sophisticated heathen cults, unless there was an accompanying bill of particulars setting forth a few, if any there be, of those non-Christian virtues which other faiths have to offer us.

The observation may be ventured that Christian missions, ever since the promulgation of the Inquiry's thesis, seem to have been in a state of retreat rather than advance. The reply will be made that world political events have occasioned that. Nevertheless, there may be some reason to believe that in many instances liberal missions have in a degree contributed to those events. It has been charged that the student bodies of modernistic mission institutions in China were ready tinder for the communist flame. It may be that divine decrees closed doors when there were no envoys with a proper gospel to enter them.

At any rate whether or no Edwards neglected his opportunity of learning from the heathen. Instead he plunged more deeply into Christian theology. Strange it was that this mission post provided him with the opportunity of composing his most famous literary works. Certainly this was not because of a new found leisure. Hopkins remarks, "His greatest work was written in four months and a half, while each Sabbath he delivered two sermons to his English flock, and two others by interpreter to two distinct auditories of Indians, and catechized the children of both tribes, and carried on all the correspondence of the mission, and was forced to guard against the measures of a powerful combination basely occupied in endeavoring to drive him from his office, and thus to deprive his family of their daily bread." Nevertheless, by comparison with his Northampton pastorate, possibly more time was available for writing. The preaching of the milk of the gospel to the Indians doubtless required little preparation. The strong meat of controversy could be set down in manuscript without the interruption of breezy debate.

In addition to the opposition of his enemies and the arduous duties of his post Edwards had to contend with a recurrence of the infirmity that intermittently prostrated him. In April, 1755, he wrote to his Scottish friend Dr. John Erskine:

"I should have written you long ago, had I not been prevented by the longest and most tedious sickness, that I ever had in my

life: it being followed with fits of ague, which came upon me about the middle of last July, and were for a long time, very severe and exceedingly wasted my flesh and strength, so that I became like a skeleton. I had several intermissions of the fits by the use of the Peruvian bark but they never wholly left me, till the middle of last January. In the meantime, I several times attempted to write letters to some of my friends, about affairs of importance, but found that I could bear little of such writing. Once in attempting to write a letter to Mr. Burr, a fit of ague came upon me while I was writing, so that I was obliged to lay by my pen. When my fits left me, they left me in a poor weak state, so that I feared whether I was not going into a dropsy. Nevertheless, I have of late, gradually gained strength."

If we should endeavor to find an individual who was similarly confronted with invalidism, but with contrary effects, we could discover no one more appropriate for comparison than Charles Darwin. Darwin had embarked upon his career with an uncommonly robust constitution. His abruptly discontinued medical course at Edinburgh followed by his unconsummated venture after clerical orders at Cambridge had not in the slightest degree sapped his brawn. Yet a few years later he appeared a chronic invalid. The slightest excitement brought on a seizure, the symptoms of which were violent shiverings with vomiting and giddiness. He experienced an extreme sensibility to heat and cold. By evening he customarily complained of complete exhaustion, which a sleepless night failed to repair. He felt that, in order to accomplish his work, it was necessary to adopt a daily routine which allowed frequent intervals of complete rest between short periods hardly exceeding an hour of work. He was constantly guarded by his family from strain and irritation. Thus Darwin was able to write a number of rather heavy books and maintain a correspondence with a few like-minded mortals. However, the exertion entailed pales in comparison with the labors of Edwards, whose spindling frame was beset by illness throughout life and shocked by constant conflict.

Sympathizers had diagnosed Darwin's infirmity as chronic neurasthenia of a severe grade. It has been ascribed to the overstrain of the Beagle voyage and to his life of hard intellectual work. However, with our better understanding of the significance of psychotic reactions, we must necessarily attribute it to reasons deeper than physical or mental fatigue. Rather there was indicated a psychotic reaction, in which there was a temporary or permanent degradation of personality functions as a result of failure of psychological adaptations. The symptoms may be recognized as the end results of various psychological defensive manoeuvres designed to prevent the expression of feelings or desires that would not be acceptable to the conscious part of the personality. This inner conflict doubtless centered

about Darwin's effort to erase design from the universe. With him the word "purpose" was an expression to be studiously avoided in speech or writing.¹ It is said that the very sight of a peacock feather made Darwin sick in mind and body, since the feather's design pictured an eye, an organ, the mechanical make-up of which so obviously inferred intent and forethought.² We find him uttering doctrinaire statements like the following, "The old argument from design in Nature, as given by Paley, which formerly seemed to me so conclusive, fails, now that the law of natural selection has been discovered." For all his ardent predilection and conceit that he could overturn mankind's way of thought, his inner consciousness knew well the shortcomings of the "law of natural selection." His was the anxiety of a special pleader, who recognizes the sham inherent in his brief and is relying upon the probability that an obtuse judge will fail to stumble upon it. Edwards on the other hand, suffered no such mental conflict. His religion, his philosophy, and his system of scientific knowledge were in close harmony. Whether on the offensive or defensive they moved in unbroken ranks. Possibly our efforts to ascertain what the effect would have been upon Edwards' genius of a knowledge of modern scientific discoveries would constitute an inquiry hardly more interesting than to establish how Darwin's neurosis would have reacted to modern psychiatric treatment. Would psychiatric therapy have compounded the idiosyncrasies upon which Darwin's life work was based or would it have cancelled out his bias?

To counterbalance the effect of such obstacles as constant labor and recurring illness in interrupting the preparation of Edwards' sermons and other writings, there was his habit of jotting down and preserving notes as a source from which finished manuscripts could speedily be assembled. We can discover Edwards' thoughts on various subjects not only from his published works and from the notebooks of his student days but also from a document known as *Miscellanies*. This has been described as a sort of commonplace book, in which he stored away random thoughts and upon which he drew in preparing sermons and publications. While it evidently was begun as early as 1722, it covered all subsequent periods of his life.

One of the most interesting and most lengthy entries in the *Miscellanies* is where Edwards examined the objection frequently made against the argument that the order and final causes of things proves the existence of a God.³ The objection, which he attacks, is that this order might happen in an infinite number of changes of the fortuitous positions of the parts of the matter that the universe is composed of, in their endless wanderings in infinite space. He remarks that "the whole weight of the objection is laid on the infinity of the room or opportunity there is for the parts of matter to wander in and come into an infinite variety of positions and textures." Edwards begins his attack by observing that "whether

we suppose an infinite duration or never so short an opportunity, it is very much the same thing. . .” He then proceeds to sustain that observation by the following illustration:

“If we suppose but two particles in all, and there were some certain positions or distances one from another that was more convenient than any other, supposing that convenient distance to be the length of ten of both their diameters, and suppose, moreover, these two particles from all eternity to be confined to one certain right line of an infinite length, supposing these particles would exist without a cause, it would be an infinite number to one whether these two particles would lie in the most convenient situation at this time — because there is but one convenient distance and an infinite number of other possible distances in that infinite line and it is at least a thing as likely never to have been as to have been that these two particles should ever have come to this convenient situation at all at any time throughout the past eternity.”

After this most generous granting of suppositions Edwards continued by supposing that the two particles be confined not to any certain infinite line but to a certain infinite plane. However, this does not help since an infinite plane contains an infinite number of lines and therefore infinitely increases the unlikelihood that the two particles should ever come to that most convenient distance one from the other. Edwards next supposes that, instead of being confined to an infinite line or plane, the two particles have a whole infinite solid to wander in. However, since that would contain an infinite number of planes, the degree of improbability of the convenient situation ever happening throughout eternity is expressed by an infinite number multiplied by an infinite number to one. Now, Edwards supposes that there are three particles and finds the improbability magnified of having the three particles ever move into the form of a triangle of specific dimensions. The addition of one single particle to the frame does infinitely more than overbalance it and the system’s becoming more complex increases improbability. He demonstrates that the addition of the minutest particle that goes to making up the complex frame adds infinitely more to the improbability than an eternity of opportunity diminishes it.

As a last concession Edwards supposes a surplusage of particles, but he concludes that whether we suppose the particles to be thick or rare, it comes to the same thing. “The thicker they are the less likely it is that they would leave such vast room to be occupied only by regular particles and the more likely to thrust themselves among those that are regularly situated one with respect to another, and the thinner or more rare they are the less do they through their multitude help the chance for the existence of a regular situation of some particles or others.” The entire argument is followed through in

such meticulous detail that it puts to shame the loose conclusions so frequently arrived at by modern scientific theorists. Probably the most interesting aspect of this argument for design is that it is built upon the ultimate particles of matter. This demonstrates that Edwards' mind moved along atomic lines with a dexterity that modern philosophers fail to achieve.

To think straight in this field is evidently difficult for many modern scientists as well. It is interesting to compare Edwards' reasoning, which is for the most part lucid, with some recent speculation on the subject. Some five years ago an issue of probably the best known scientific journal in the land contained an article relating to the origin of life.⁴ The author of that article referred to the fact that after Pasteur had finished his experiments nothing remained of a belief in spontaneous generation. The author lamented vehemently that this should be so. He asserted that the reasonable view is to believe in spontaneous generation and that the only alternative is to believe in a single primary act of supernatural creation. As we shall later discover, that statement is probably an oversimplification, but we can at least applaud his observation that the philosophical poverty of our time is illustrated by the fact that most biologists are satisfied with the downfall of the spontaneous generation hypothesis, yet are unwilling to accept the alternative belief in special creation and are left with nothing. He insisted that all that is needed to make an organism is to have the right substances, in the right proportion, and in the right arrangement. He was frank to admit that this is problem enough, since the most complex mechanism man has devised, as for example, an electronic brain, is child's play compared with the simplest of living organisms. However, he then fell back upon the old argument of unlimited time. He maintained that, however improbable an event may be in a single trial, it becomes increasingly probable as the trials are multiplied, so that eventually the event becomes virtually inevitable. Any probability, he contended, could be materialized simply by multiplying sufficiently the number of trials. He suggested that we assume a reasonably improbable event, the chance of which is 1 to 1,000. The chance that this will not occur in one trial is stated to be 999/1000. It is then asserted that the chance that it will not occur in a thousand trials is 999/1000 multiplied together 1000 times, which comes out to be 37/100. The chance that it will happen at least once in 1,000 trials is said to be one minus this number or 63/100 — a little better than three chances out of five. Thus it was propounded that one thousand trials had transformed a highly improbable to a highly probable event, and that, if 10,000 trials were essayed, the chances the event would occur at least once would come to 19,999/20,000, so that it becomes practically inevitable. With the greatest of ease our mathematician then leaped to a biological conclusion that one occurrence

is probably enough for life as we know it with its capacity for growth and reproduction. Accordingly he concluded that time of itself will perform the miracle, since by it the impossible becomes possible, the possible probable, and the probable virtually certain.

It should not be necessary to criticize the foregoing sophistical reasoning, but the temptation is overpowering. The scientist has evidently failed to recall the basic mathematical verity that zero times one or zero times a million still remains zero. It is to be regretted that the scientist did not enter the field of finance, since he could explain how by the device of becoming insolvent sufficiently often one could achieve perfect solvency even without the magic of bankruptcy. Another interesting observation is that when he relied upon growth and reproduction to standardize and speed up chance events, he was breaking one of the ancient prized precepts of his profession. *Natura non facit saltum*. It was a maxim, to which no exception was allowed, that in nature there must be no leap, no sudden transition, no breach of continuity. Everything must be accounted for by the slow chance interplay of resident forces. We must therefore insist that there be no bypassing of natural procedure by quick self-duplicating processes without adequate explanation. We know that in growth and reproduction there is nothing but the transposition of ultimate particles of matter, no different in kind than in any other happening. We must demand that all these processes be accounted for by the same explanation. Summarizing the matter we can safely conclude that the scientist's fundamental error was his failure to read Jonathan Edwards' *Miscellanies* before undertaking his opus on the origin of life.

The practice has been adopted for the most part in the present volume of entitling the chapters with the several activities which successively occupied Edwards' life. The omission of the designation "Author" is not a disregarding of his preeminent pursuit, but a recognition that he was a writer throughout all courses of his career. His earlier compositions had included — "A faithful narrative of the surprising work of God in the conversion of many hundred souls in Northampton and the neighboring towns and villages of the county of Hampshire in the province of Massachusetts-Bay in New England" — "The distinguishing marks of a work of the Spirit of God applied to that uncommon operation that has lately appeared on the minds of many of the people of New England: with a particular consideration of the extraordinary circumstances with which this work is attended" — "A treatise concerning religious affections in three parts" — "A strong rod broken and withered" — "Humble inquiry into the rules of the word of God concerning the qualifications requisite to a compleat standing and full communion in the visible church" — "True saints, when absent from the body are present with the Lord" — "An account of the life of the late Reverend

Mr. David Brainerd, minister of the gospel, missionary to the Indians, from the honorable Society in Scotland, for the propagation of Christian knowledge, and pastor of a church of Christian Indians in New Jersey." But as mentioned above it was at Stockbridge that Edwards drafted his most notable manuscripts.

"To maken questions of . . . the ordyr of destini . . . predestination diuine and of the lyberte of fre will." Thus Chaucer worded the prime philosophical riddle of the ages, an inquiry which has been often deprecated as antiquated speculation, but which still remains of universal interest. The subject had drawn Edwards' attention while yet in college, but like many other literary projects it had been postponed. In a letter to his Scottish friend, Doctor John Erskine, in 1747 he had announced a general plan of a discourse on the freedom of the will and moral agency. Again in November 1752 he wrote, "I began the last August to write a little on the Arminian controversy, but was soon broke off and such have been my extraordinary avocations and hindrances that I have not had time to set pen to paper about this matter since. But I hope that God in his providence, will favor me with opportunity to prosecute the design." A letter dated April 14, 1753 addressed to Erskine contains word of the accomplishment of his plan, "After many hindrances, delays and interruptions, Divine Providence has so far favoured me and smiled on my design of writing on the Arminian controversy that I have almost finished the final draft of what I first intended; and am now sending the proposals for subscription to Boston to be printed." This was the book, which as heretofore remarked had been written in four months and a half and which bore the title — "A careful and strict enquiry into the modern prevailing notions of that freedom of will, which is supposed to be essential to moral agency, virtue and vice, reward and punishment, praise and blame."

The book was Edwards' answer to "that grand enquiry 'What determines the Will'." He made answer by "shewing the manifest inconsistency of the Arminian notion of the liberty of the Will consisting in the Will's self-determining Power." He refuted the theory that the will can possibly determine itself to will. Consequently God's decrees and foreknowledge cannot be circumvented, but rather encompass the acts of men whose wills in choosing are so fixed with respect to motives as to be incapable of initiating acts that are really contingent.

It was a deep volume, powerful and keen, and its gravity was rarely lightened by any flash of jocose humor. With a few brilliant exceptions this was the general tenor of the literature of his age. The bon mot of the eighteenth century hardly sparkled by any modern appraisal. The nearest approach to wit of a rather tepid character is found in a passage where the illogical sophistry of certain Arminian writers had aroused his sarcasm. Edwards wrote:

"If some learned philosopher had been abroad, in giving an account of the curious observations he had made in his travels would say, 'He had been in Tierra del Fuego and had there seen an animal which he calls by a certain name that begat and brought forth itself and yet had a sire and a dam distinct from itself; that it had an appetite and was hungry before it had a being; that his master who led him and governed him at his pleasure was always governed by him and driven by him where he pleased; that when he moved he always took a step before the first step; that he went with his head first and yet always went tail foremost; and this though he had neither head nor tail, it would be no impudence at all to tell such a traveler, though a learned man, that he himself had no notion or idea of such an animal as he gave an account of and never had nor ever would have.'"

Irrespective of what now forgotten liberal luminary Edwards was thinking when he penned the lines, if he had been endowed with prevision he would have foreseen that probably the best known traveler to visit Tierra del Fuego was a naturalist who arrived with the crew of the *Beagle*.

Since, as indicated above, we have selected Charles Darwin as one of the foils of Edwards, a further analysis of Darwin's character might be helpful at this time. Darwin was in many respects a negative type, but he was destined to attract a teeming host of adherents. Though he admitted that his school days at Edinburgh and Cambridge had been wasted, he had managed to acquire in a degree the bedside manner of a physician and the unction of an ex-priest. But these endowments alone are hardly sufficient to explain the servile loyalty which he inspired in his followers. Possibly he drew so many unto him because he gave the multitude what it wanted. Natural depravity esteemed the emphasis which he placed upon bestial brotherhood and the doctrine of chance variation appealed to the gambling sense. Any slur upon his prestige is resented with moist eyes and his life mission is regarded as truly soteriological. The following lines are no overstatement of the devotion accorded him:

"Ashamed of Darwin? Sooner far,
Let rumhounds all forsake their bar,
Let numbers fans abandon hope
And addicts belch at sight of dope.
"Till then, evolve organically
And make selection naturally,
Though Piltdown Man turn out a hoax
And proofs assured prove ghastly jokes."

Returning to Stockbridge after this sortie, we find Edwards laboring at his mission, weathering the alarms which swirled about his outpost during the French and Indian War, and in every spare moment committing to manuscript his thoughts on theological issues.

Into the relative calm of the frontier retreat there came suddenly a call back to civilization. His son-in-law, Reverend Aaron Burr, President of the College of New Jersey had died on September 24, 1757. The Corporation of the College met two days thereafter and immediately made choice of Jonathan Edwards as his successor. In a letter to the Trustees Edwards expressed surprise at his selection and proceeded in the following vein:

"The chief difficulty in my mind, in the way of accepting this important and arduous office, are these two: First, my own defects, unfitting me for such an undertaking, many of which are generally known, besides others, of which my own heart is conscious — I have a constitution, in many respects peculiarly unhappy, attended with flaccid solids, vapid, sisy and scarce fluids, and a low tide of spirits; often occasioning a kind of childish weakness and contemptibleness of speech, presence, and demeanor, with a disagreeable dulness and stiffness, much unfitting me for conversation, but more especially for the government of a college. . . . I am also deficient in some parts of learning in Algebra, and the higher parts of Mathematics and in the Greek Classics, my Greek learning having been chiefly in the New Testament.

"The other thing is this; that my engaging in this business will not well consist with those views, and that course of employ in my study, which have long engaged and swallowed up my mind, and have been the chief entertainment and delight of my life.

"I have already published something on one of the main points in dispute between the Arminians and Calvinists: and have in view, God willing, (as I have already signified to the public) in like manner to consider all the other controversial points, and have done much toward a preparation for it. But beside these, I have had on my mind and heart; (which I long ago began, not with any view to publication,) a great work, which I call a History of the Work of Redemption, a body of divinity in an entire new method, being thrown into the form of a history; considering the affair of Christian Theology, as the whole of it, in each part, stands in reference to the great work of redemption by Jesus Christ; which I suppose to be above all others, the grand design of God, and the summum and ultimum of all the divine operations and decrees; particularly considering all parts of the grand scheme in their historical order. . . . I have also for my own profit and entertainment done much toward another great work, which I call the Harmony of the Old and New Testament, in three parts. . . .

"My heart is so much in these studies that I cannot find it in my heart to be willing to put myself into an incapacity to pursue them any more in the future part of my life to such a degree as I must; if I undertake to go through the same course of employ, in the office of president, that Mr. Burr did, instructing in all the lan-

guages, and taking the whole care of the instruction of one of the classes, in all parts of learning, beside his other labours.

"On the whole, I am much at a loss, with respect to the way of duty, in this important affair. I am in doubt, whether, if I should engage in it, I should not do what both you and I would be sorry for afterwards. Nevertheless, I think the greatness of the affair, and the regard due to so worthy and venerable a body as that of the trustees of Nassau Hall requires my taking the matter into serious consideration. . . ."

While in this state of suspense Edwards decided to ask the advice of a number of gentlemen in the ministry on whose judgment and friendship he could rely, and to act accordingly. The individuals, whose guidance was so solicited, met at Stockbridge on January 4, 1758, and having heard arguments pro and con, rendered their judgment that it was his duty to accept the invitation to the Presidency of the College. It is recorded that when Edwards heard their decision, whether through sentiment or presentiment "he appeared uncommonly moved and affected with it, and fell into tears on the occasion, which was very unusual for him in the presence of others."

CHAPTER VII

College President

EDWARD'S COMING to Princeton was in several respects a logical occurrence. As mentioned above his immediate predecessor was his son-in-law, Reverend Aaron Burr. But more significant than his family tie was the fact that despite his wilderness exile he had come to be recognized as a prime personage in intellectual circles and as a pillar in the household of faith. He was thereby doubly qualified to lead the educational project undertaken in the new school. Governor Belcher of New Jersey and formerly Governor of Massachusetts and of New Hampshire, to whom Nassau Hall largely owed its establishment, had in mind a college which would maintain the intellectual heights from which the New England schools had in large measure slipped. In 1748 he had written Edwards:

"The accounts I receive from time to time, give me much reason to fear that Arminianism, Arianism, and even Socinianism, in distinction to the doctrines of free grace, are daily propagated in the New England Colleges. How horribly and how wickedly are those poisonous notions rooting out those noble pious principles on which our excellent ancestors founded those seminaries, and how base a return is it of the present generation, to that God, who is jealous of his glory, and will take vengeance on his adversaries, and reserveth wrath for his enemies."

This dissatisfaction with the crude devolution of education in New England inspired the design of the new institution.

In assuming the presidency of a Presbyterian school Edwards had in a sense completed a circuit. More than a quarter of century before his first post had been with the Presbyterian group in New York City. The move was not a difficult one. Edwards on another occasion after his dismissal from Northampton had written Dr. John Erskine, then minister at Kirkintilloch near Glasgow, as follows:

"You are pleased, dear Sir, very kindly to ask me, whether I could sign the Westminster Confession of Faith, and submit to the Presbyterian form of Church Government; and to offer to use your influence to procure a call for me, to some congregation in Scotland. I should be very ungrateful, if I were not thankful for such kindness and friendship. As to my subscribing to the substance of the Westminster Confession, there would be no difficulty; and as to the Presbyterian Government, I have long been perfectly out of conceit of our unsettled, independent, confused way of

church government in this land; and the Presbyterian way has ever appeared to me most agreeable to the word of God, and the reason and nature of things; though I cannot say that I think that the Presbyterian government of the Church of Scotland is so perfect that it cannot, in some respects be mended. But as to my removing, with my numerous family, over the Atlantic, it is, I acknowledge, attended with many difficulties that I shrink at."

The prophet, who was not without honor save in his own denomination, was now to preside over a school of the prophets of another designation. As Oliver Wendell Holmes pettishly put it: "The truth is Edwards belonged in Scotland, to which he owed so much, and not to New England. And the best thing that could have happened, if it had happened early enough, both for him and his people, was what did happen after a few years of residence at Stockbridge, where he went after leaving Northampton, — namely, his transfer to the presidency of the College at Princeton, New Jersey, where the Scotch theological thistle has always flourished native or imported, . . ."¹

The first sermon which Edwards preached at Princeton was on the Unchangeableness of Christ. It was upwards of two hours in the delivery, but is said to have been listened to with such profound attention and deep interest, by the audience, that they were unconscious of the lapse of time, and surprised that it closed so soon. Aside from preaching in the few weeks which preceded his sickness Edwards did little as president, except to give out some questions in divinity to the senior class, to be answered before him. Each student had the opportunity to study and write what he thought proper upon the question. When they came together to answer them, they found so much entertainment and profit by it, especially by the light and instruction Mr. Edwards communicated, in what he said upon the questions, when they had delivered what they had to say that they spoke of it with the greatest satisfaction and wonder.

While at Princeton Edwards dispatched to the printer the manuscript of his book, "The Great Christian Doctrine of Original Sin defended; Evidences of its Truth Produced, and Arguments to the Contrary Answered containing in particular A Reply to the Objections of Dr. John Taylor in his book entitled 'The Scripture-Doctrine of Original Sin Proposed to Free and Candid Examination, &c'." Edwards had selected a theme which has always been quite unpopular. Most human beings are so jealous of their own accomplishments that they are even unwilling to share with their ancestors the culpability for their natural depravity. For our present discussion we are interested particularly in several paragraphs on a special topic in the book, which will be quoted at some length:

"That God does, by his immediate power, uphold every created substance in being, will be manifest, if we consider that their present existence is a dependent existence, and therefore is an

effect and must have some cause, and the cause must be one of these two; either the antecedent existence of the same substance, or else the power of the Creator. But it cannot be the antecedent existence of the same substance. For instance, the existence of the body of the moon, at this present moment cannot be the effect of its existence at the last foregoing moment. For not only was what existed the last moment, no active cause, but wholly a passive thing; but this also is to be considered, that no cause can produce effects in a time and place in which itself is not. It is plain, nothing can exert itself or operate, when and where it is not existing. But the moon's past existence was neither where nor when its present existence is. In point of time, what is past entirely ceases when present existence begins; otherwise it would not be past. The past moment has ceased, and is gone when the present moment takes place; and no more co-exists with it, than any other moment that had ceased twenty years ago. Nor could the past existence of the particles of this moving body produce effects in any other place, than where it then was. But its existence at the present moment, in every point of it, is in a different place from where its existence was at the last preceding moment. From these things I suppose it will certainly follow, that the present existence, either of this, or any other created substance, cannot be the effect of its past existence. The existences (so to speak) of an effect, or thing dependent, in different parts of space or duration, though ever so near one to another, do not at all co-exist one with the other; and therefore are truly different effects, as if those parts of space and duration were ever so far asunder. And the prior existence can no more be the proper cause of the new existence, in the next moment, or next part of space, than if it had been an age before, at a thousand miles distance, without any existence to fill up the immediate time or space. Therefore, the existence of created substances, in each successive moment, must be the effect of the immediate agency, will, and power of GOD. . . .

"Now, in the next place, let us see how the consequences of these things is to my present purpose. If the existence of created substance, in each successive moment, be wholly the effect of God's immediate power in that moment, without any dependence on prior existence, as much as the first creation out of nothing, then what exists at this moment, by this power, is a new effect, and simply and absolutely considered not the same with any past existence, though it be like it and follows it according to a certain established method. And there is no identity or oneness in the case, but what depends on the arbitrary constitution of the Creator; who by his wise sovereign establishment so unites these successive new effects, that he treats them as one, by communicating to them like properties, relations and circumstances, and so leads us to

regard them and treat them as one. . . . In this sense, the continuance of the very being of the world and all its parts, as well as the manner of continued being, depends entirely on an arbitrary constitution. For it does not necessarily follow that because there was sound, or light, or colour, or resistance, or gravity, or thought, or consciousness, or any other dependent thing the last moment, that therefore there shall be the like at the next. All dependent existence whatsoever is in a constant flux, ever passing and returning, renewed every moment, as the colours of bodies are every moment renewed by the light that shines upon them, and all is constantly proceeding from God, as light from the sun. In him we live and move and have our being.

“When I suppose that an effect which is produced every moment by a new action or exertion of power, must be a new effect in each moment, and not absolutely and numerically the same with that which existed in preceding moments, what I intended may be illustrated by this example. The lucid colour or brightness of the moon, as we look steadfastly upon it, seems to be a permanent thing, as though the same brightness continued. But indeed it is an effect produced every moment. It ceases, and is renewed, in each successive point of time; and so becomes altogether a new effect at each instant; and no one thing that belongs to it is numerically the same that existed in the preceding moment. The rays of the sun, impressed on that body and reflected from it, which cause the effect, are none of them the same. The impression, made in each moment on our sensory, is by the stroke of new rays. And the sensation excited by the stroke is a new effect, an effect of a new impulse. Therefore the brightness or lucid whiteness of this body is no more numerically the same thing with that which existed in the preceding moment, than the sound of the wind that blows now is individually the same with the sound of the wind that blew just before; which though it be like it, is not the same, any more than the agitated air that makes the sound is the same; or than the water flowing in a river that now passes by, is individually the same with that which passed a little before. And if it be thus with the brightness or colour of the moon, so it must be with its solidity, and everything else belonging to its substance, if all be, each moment, as much the immediate effect of a new exertion or application of power.

“The matter may perhaps be in some respects still more clearly illustrated thus. — The images of things in a glass, as we keep our eye upon them, seem to remain precisely the same, with a continuing perfect identity. But it is known to be otherwise. Philosophers well know, that these images are constantly renewed, by the impression and reflection of new rays of light; so that the

image impressed by the former rays is constantly vanishing, and a new image impressed by new rays every moment, both on the glass and on the eye. The image constantly renewed by new successive rays, is no more numerically the same, than if it were by some artist put on anew with a pencil, and the colours constantly vanishing as fast as put on. And the new image being put on immediately or instantly, do not make them the same, any more than if it were done with the intermission of an hour or a day. The image that exists this moment is not at all derived from the image that existed the last preceding moment; for, if the succession of new rays be interrupted by something interposed between the object and the glass, the image immediately ceases, the past existence of the image has no influence to uphold it, so much as for one moment. Which shews, that the image is altogether new-made every moment; and strictly speaking is no part numerically the same with that which existed the moment preceding. And truly so the matter must be with the bodies themselves, as well as their images. They also cannot be the same, with an absolute identity, but must be wholly renewed every moment, if the case be as has been proved, that their present existence is not, strictly speaking at all the effect of their past existence; but is wholly every instant, the effect of a new agency, or exertion of the powerful cause of their existence. If so, the existence caused is every instant a new effect, whether the cause be light or immediate divine power, or whatever it be."

In the foregoing paragraphs are summarized Edwards' mature conclusions respecting the riddle of existence. By calculated repetitions he has made certain that there should be no misunderstanding. Here we discover with finality which one of Edwards' youthful philosophical theories survived. Gone were the idealism and the pantheism, if they ever existed as such in his mind. Gone was the nebular hypothesis. the woundup universe operating under natural laws. Here we find in strong line and clear detail continuous creation. "Behold, I make all things new." The fresh green frond and the fossil fern have both alike existed only for an instant.

Upon the thought Edwards bases a new and daring argument. Each of the particles that make up the lucid moon of which he speaks — indeed every atom of which the universe is composed, has a momentary existence, immediately ceases to exist, and is replaced in its location by a successor atom. Ephemeral, an adjective coined from that order of insects whose life span is for a day, is too slow a word to describe it. Edwards refers to matter as a pigment which has to be constantly renewed every moment by the artist's pencil, although a modern spray gun would have been a better illustration. Edwards concludes that the very identity, which exists between an atom and its successor, only consists in the arbitrary determination

of God in considering and willing them to be the same. The conclusion is so obvious that he did not need to spell it out. Human beings, clouds of ephemeral atoms that we are, can not be the same as we were an instant ago, except as the Almighty regards our identity as shifting constantly to our new selves. If responsibility together with identity can be viewed as bridging these continuous successions of gaps, it is no more difficult to believe that responsibility can span the gaps in the successive generations of men back to their sinning first parents, if the Almighty chooses to regard it as doing so.

If anyone be tempted to dismiss Edwards' theological tenet as antiquated, let him not likewise reject without deliberate reflection the physical hypothesis upon which Edwards based his conviction. As will be hereinafter demonstrated, there is a distinct possibility that Edwards' hypothesis can find support in the most modern and significant discoveries in the field of physics.

The doctrine of continuous creation may have roots springing from Malebranch and other philosophers who regarded all events as successive effects of divine volition. However, the theory of identity was in all probability suggested to Edwards by a passage in Locke's *Human Understanding*, wherein the question was raised how the identity of the child remains in the grown man, the seedling in the mature plant, etc.² This was the old seven-year allusion, with which we are so familiar. Our bodies are entirely new after six years of replacement. Yet Locke's passage posed little more than a problem in metabolism. Edwards went far beyond that. He quickened the tempo to a continuous momentary replacement and made it atomic in character.

It is strange that few of Edwards' biographers or of those who have made him the subject of written comment, have undertaken to discuss the passage at any length. Liberals have referred to it as an unusual but ineffective defense of the dogma of original sin. Hodge of Princeton, the conservative author of *Systematic Theology*, which was cited as an outstanding example of a work that submitted both the pros and cons of every proposition, was quite critical of the idea of continuous creation.³ It confounded the works of creation and the works of providence, and that was anything but systematic. Furthermore, Hodge saw in it implications of pantheism. Creation, of course, is the antithesis of pantheism, and how the multiplication of creations could tend toward pantheism is difficult to explain. True, incessant creations would give finger tip control, but they could not possibly identify the creator with the creature substantially, so as to produce the unity which pantheism presupposes. Several have seen in the passage a late manifestation of idealism. This it certainly was not. The salient difference between idealism and Edwards' theory of continuous creation is that the former is a subjective concept while the other is completely objective. The fact that the duration of

existence is ephemeral does not in any degree rob it of its objective quality.

None have recognized the full import of the thought in the realm of physics. A theological treatise on original sin is an unlikely spot to find any physical discovery. It has been said that Max Planck came upon the quantum theory in a study of black body radiation in the field of thermodynamics. This has been referred to as probably the most improbable place for making that most significant discovery. This is mentioned not merely for the purpose of noting the similarity in the unlikeliness of the source, but in order that some comparison may be drawn between Edwards' theological theory and the keynote of modern physics which Planck enunciated.

The quantum theory asserts that radiation is emitted discontinuously in integral multiples of certain indivisible quanta of energy, which depend upon the frequency of the oscillation of the electrons. This proportionality factor is Planck's universal constant designated h . This quantum of action indicates that just as matter has long been known to be discontinuous in nature and composed of discrete ultimate particles, so radiation likewise is broken up into units. As indicated above the value of the quanta depends not only upon Planck's constant h but also upon the number of vibrations per second of the electrons composing the substance. When light is given off or absorbed the tiny definite units are referred to as photons.

Another important aspect of the quantum theory is the recognition that it is impossible to localize electrons at any instant.⁴ That is to say in determining the motion of an ultimate particle we are unable to trace the change of its position with time. One cannot assert that at such a time his electron will be in a certain place, since it has been demonstrated that these ultimate entities possess a duality of nature — that of a wave and of a particle, the wave in a sense representing the area in which the particle may be expected to appear. Thus we may think of the world line of an ultimate particle as consisting of a series of blind spots, between each of which either the particle momentarily reappears or a similar particle appears. The dance of the electrons may be likened to a bounding ballet in which the performers are only visible for the instant that the toe of each touches the floor. This association of wave and corpuscle has been termed a basic law of nature significantly connected with the quantum of action and applicable not only to radiation of light but to all physical entities of which matter is composed.

It is hardly necessary to comment further upon the foregoing complexities which this new knowledge imposes upon physicists still entangled with and blinded by classical scientific concepts. The physicists are experiencing extreme difficulty in formulating this new enlightenment. They are handicapped by the necessity of mak-

ing a show of experimentation, by a disrelish for disrupting long adopted maxims, and by an unwillingness to tolerate any explanation that would conflict with their philosophical preconceptions. Faced with these difficulties it is small wonder that a popular scientist some two decades ago suggested that on the doors of the laboratories in which the new physics was being analyzed and tested there should be posted hold signs reading, "Philosophers — keep out!" There is some justification for suggesting that philosophical conclusions should await factual clarification, but both science and philosophy are long and life is fleeting. Moreover, the posting of such signs would be late by two centuries, since we find that those workshops had long since been explored by an antiquated Connecticut Yankee, Jonathan Edwards.

The foregoing matter should warrant further elucidation. For the moment, however, we may conclude that both the meditations of Edwards and the investigations of modern physicists point to the one great truth — Matter is discontinuous in time as well as in space. Not only is the physical universe composed of ultimate particles each limited to its tiny locale in space, but each of the ultimate particles is limited to a brief duration. This means that we live in — shall we say — a shredded universe, cut longitudinally and laterally into infinitesimal ephemeral particles. Any revolution in thought of that importance is bound to have its casualties. The best minds in the field of science recognize causality as the most obvious casualty.⁵ The late John von Neumann said: "There exists today no reason which allows us to affirm the existence of causality." And, if causality falls, can we expect that the same fate can be eluded by causality's close comrade. We refer, of course, to that widely accepted dogma, which rests solely on causality and which has been defined as a "series of changes in which the nature of each step depends on what has preceded."⁶ Possibly we would recognize this sure causality as none other than Evolution itself, if we reworded the definition to a development from the homogeneous to the heterogeneous by means of resident forces without outside influence or control.

Edwards had been at the college only a few weeks, when out of the darkness there walked that pestilence which in those days inspired fear in educated and illiterate alike. At an earlier date Edwards had expressed the view that, if one is likely to be subject to the contagion of smallpox, he should endeavor to find a skillful and prudent physician, under whose care he could put himself and take the smallpox by inoculation, preparing his body for it by physic and diet. Acting upon that resolution and with the consent of the corporation of the college he was inoculated on February 13, 1758, by Dr. William Shippen. He had the inoculation favorably and it was thought that all danger was over. However, a secondary fever set in and by reason of a number of pustules in his throat and in the

roof of his mouth the obstruction was such that he could not swallow a sufficient quantity of drink to check the fever, which proved too strong for his feeble frame.

He appeared to have the uninterrupted use of his reason to the last. After he was sensible that he could not survive the sickness, he expressed the hope that his wife would submit cheerfully to the will of God and that the fact that his children were like to be left fatherless would be an inducement for them to seek a Father that would never fail them. He requested that his funeral be simple and that any additional sum of money, that might be expected to be laid out in the distribution of scarfs and rings, should be disposed of to charitable uses. Just at the close of life some persons, who stood by expecting he would breathe his last in a few minutes, were lamenting his death as having a dark aspect on the college and on the interest of religion in general. Not imagining that he heard or that he would ever speak another word, they were surprised when he said, "Trust in God, and ye need not fear." These were his last words and his earthly life ended on March 22nd, 1758 in the 55th year of his age.

At the funeral one of his weeping friends, Doctor Samuel Finley thus expressed the surprising dispensation of his death, "He was pouring in a flood of light upon mankind which their eyes as yet were too feeble to bear." Today the question may be propounded whether two hundred years have sufficiently sharpened mankind's vision and discernment. It is significant that Doctor Finley was the great-grandfather of Samuel Finley Breese Morse, the operation of whose invention was inaugurated by the words "What hath God wrought?" — a phrase which is anathema to many scientists. They are willing to concede in a poetic sense that God may make a tree, but a telegraph transmitter is aboon his might.

On the college grounds a flat table top slab was erected bearing a lengthy epitaph, summarizing his life and attainments and informing that "*Hic jacet mortalis pars.*" The succeeding recital of his virtues in this unknown tongue would be incomprehensible to most undergraduates and faculty members of the present day. "*Amissum plorat Collegium, plorat et Ecclesia! At, eo recepto gaudet Coelum.*" (The bereft college laments, the church also weeps! But heaven rejoices at his reception.) The inscription concluded, "*Abi, Viator, et pia sequere vestigia,*" which being interpreted means, "Go, and follow his pious footsteps." This admonition is addressed to the "Viator," the campus wayfarer. We are instantly reminded of the words of the one and only Isaiah, "the wayfaring men, though eggheads, shall not err therein."

Having put our hand to the plow of comparison, we should not look back at the last cutting of the turf. For a contrast to Edwards in the matter of epitaphs and dying declarations we shall select

Thomas Henry Huxley. During a large part of his career he pulsated with animation and zest. He was known as Professor Huxley and he wrangled with all who refused to accept his agnostic tenets. He even drew Gladstone into disputation. Gladstone accustomed as he was to parliamentary debate where he crossed swords even with benchers of the Inns of Court, was understandably annoyed at having to argue with one of the underprivileged. When Huxley's vitality began to flag we find him writing to his friend Morley the following words: "It is a curious thing that I find my dislike to the thought of extinction increasing as I get older and nearer the goal. It flashes across me at all sorts of times with a sort of horror that in 1900 I shall probably know no more of what is going on than I did in 1800. I had sooner be in hell a good deal — at any rate in one of the upper circles where climate and company are not too trying."⁷ After Huxley's death in compliance with his special direction three lines from a poem written by his wife were inscribed upon his tombstone:

"Be not afraid, ye waiting hearts that weep,
For still He giveth His beloved sleep,
And if an endless sleep He wills, so best."⁸

Noting some disharmony between the two expressions of sentiment, we wonder whether the frank personal communication to a friend or the inscription for public display represented Huxley's genuine feelings. Tucked away in one of Jonathan Edwards' notebooks we discover this observation: "Hence we learn one reason why persons who view death merely as annihilation have great abhorrence of it though they live a very afflicted life."

O. W. Holmes, the rhyming medical doctor, who hated orthodoxy in religion as much as Junior disliked logic in jurisprudence, was the author of the well-known jingle *The Wonderful One Hoss Shay*. There was some debate whether the butt of his humor was the conservatism of the typical rustic Yankee or some particular doctrine which he disliked. Knowing the predilections of the doctor we have little doubt it was the latter. Calvinism was manifestly his special target and, if the Deacon had been given a name, it would have been Jonathan. In censure and name calling the succeeding generation usually had the advantage, but it was probably well for the doctor that he and Edwards did not inhabit the same century. If it had been possible for them to have met in contemporary debate after an intellectual banquet, Edwards would undoubtedly have drunk the autocrat under the breakfast table. In his prose Holmes had pinned upon Edwards the reproach of being an architect of New England Calvinism with its theological points equally firm and rigid. Upon lapsing into poetry Holmes sought by allegory to ridicule the system and theologian anonymously that he had so frequently attacked directly. Granting the difficulty of finding the weak point in the well-fitted construction of Edwards' doctrine typified by the shay, the doctor

called in a *deus ex machina* in the form of the Lisbon earthquake to reduce the shay to dust. There was dust indeed. But it was not the disintegration of the well-constructed shay. The dust was in the eyes of the doctor and it was blown there by the take-off of the shay. It had risen from the earth to become a chariot of fire in the cavalcade of the sky where in orbit with the celestial host it traverses the heavens to return to earth at a more convenient season when reason prevails in the minds and hearts of men.

CHAPTER VIII

Ghostly Interview

THE SUGGESTION WAS made that it would be interesting to observe the reaction if Jonathan Edwards were brought face to face with the philosophic era in which we live today. Some difficulty might be involved in arranging for his appearance, if we should attempt to call the eighteenth century philosopher from his place — whether in paradise or in some faraway nook in the space-time continuum. Possibly we could persuade Edwards to slide down the world line to the mid-twentieth century just as a fireman descends the pole to the ground floor of the engine house. But the curves of the world line and its length of two centuries might leave him in a dizzy condition if he were indeed able to negotiate the slide. This concept of the space-time continuum, though it may be a prolific basis for mathematical formulae, is probably merely a metaphor. Time is a factor difficult to describe. We know it best as the subject of fugit or as something that marches on. Let us imagine that it is in the nature of a film tape, so that it can be wound, unwound and rewound, and the principle of irreversibility entirely disregarded. It should be possible by splicing the time ribbon in some way or other to get Jonathan Edwards and the present on the same plane.

Having arranged for Edwards' presence through this ingenious but not too well-explained method, we realize that he can not be detained indefinitely. Perhaps the best manner of utilizing the time would be to have him interviewed by the press. Through the searching questions of trained reporters occasionally a certain amount of information is elicited in a limited time. The word "trained" may represent a euphemism, since the expertness of the press in cross-examination is due to long habit rather than to scientific approach. Irrelevance and immateriality are no deterrents. However, since there is no occasion to hail Edwards into court, we shall have to be satisfied with the rather crude questioning of the fourth estate. The frail ethereal form of Edwards is conducted before the panel. Introductions are waived in order to save time and questions are at once launched.

Q. "We realize that much water has flowed under the bridge since colonial days and therefore, Dr. Edwards, I wonder if, to start the discussion, you could tell us what you find in modern America that astonishes you most."

A. "I fear I must confess that I am not astonished at all. I be-

lieve you had a literary character by the name of van Winkle, who after a twenty year sleep was quite bewildered by the change in scenery. It is true that I have been away for twenty decades, but I have not been asleep. Actually I have been able far better to keep abreast of current events on earth during the past two centuries than during the fifty-five years that I was an inhabitant. Post and sail brought news rather tardily. We have a number of means of securing exact and speedy intelligence, one of which is the constant arrival of erudite informants who emigrate from the vale of tears to the heavenly city. All smart souls do not go to hell."

Q. "Dr. Edwards, as a revivalist, how would you compare the Great Awakening with the present renaissance of religion?"

A. "I hesitate to draw a comparison. I would not say that the effects of the Great Awakening have ceased after two centuries. I am not certain that the effects of the present upsurge of religious interest have even begun to jell as yet. Therefore, the time is not ripe for an appraisal."

Q. "Dr. Edwards, do you have any message regarding the moral problems confronting our age?"

A. "I am afraid that so far as ethics and morals are concerned, my answer would do little good. You recall that Father Abraham said, 'If they hear not Moses and the prophets, neither will they be persuaded, though one rose from the dead.'"

Q. "Dr. Edwards, —"

A. "You must pardon an interruption, as I cannot proceed under false colors. Master of Arts was the highest degree bestowed on me. Doctors were few and far between in my day."

Q. "Shall we call you Professor — or Reverend?"

A. "Call me Mister. Nonconformist ministers do not require any flashier title."

Q. "Mr. Edwards, don't you think that the growth of the ecumenical movement is the most hopeful manifestation of the true Christian spirit that has been witnessed for centuries?"

A. "I am afraid that I cannot rate it so. I was never regarded as possessing inclusive tendencies. If we judge by the contents of current religious periodicals and sermons, the least common denominator in the doctrine of all denominations, if merged, would be little more than zero. If, instead of reducing doctrine to a bare minimum, it were decided to throw all into the hopper in a consolidation, the result would be just as bizarre. Whereas in the combat of diverse views an observer was often led to believe that if one was wrong the other might be right, in the synthesis there would be a likelihood that he might be convinced that the whole conglomeration is false. I might add that it is significant that when we appraise the leaders and advocates of the ecumenical movement we find few, if any, intellectuals among them. The united church would resemble

one of the apocalyptic beasts — head, horns, wings, and claws — each member representing the doctrinal contribution of an old denomination. I understand that it has been seriously suggested that the contribution of the Presbyterian and Reformed churches to this collection would be the doctrine of the sovereignty of God. I fear me that, if so, the sovereignty would become a mere title in a very limited monarchy.”

Pleased that the witness had been drawn from his noncommittal shell the reporters rallied to the interrogation.

Q. “Aren’t your views of the sovereignty of God colored by your life under crown rule in colonial America? In the present democratic age we can no longer accept a God who is an absolute monarch. You earned the reputation of being a hard man by preaching a God who not only wreaked vengeance upon sinners, but visited affliction upon all mankind. Modern theology now furnishes us with a benevolent and good-natured deity, a partner in the continuing progress of the race. We do not indulge in such old-fashioned legalistic verbiage as the ‘acts of God.’ We have advanced beyond the notion of a deity who is responsible for disasters.”

A. “I understand that it is one of the traits of modern theology to bemoan the old legal concept of the ‘acts of God.’ Such phrases are said to blame God for our carelessness in not obeying nature’s laws. However, I can’t agree that the words, ‘acts of God,’ are a misconstruction. The rain falls upon the just and the unjust alike and not infrequently hurricanes strike the diligent as well as the negligent. Obedience of ‘nature’s laws’ does not always give complete insurance coverage. It is rather strange that theologians should strain to relieve the Ruler of Heaven and Earth from all connection with catastrophes when the present tendency of the courts is to hold property owners responsible for the injury of trespassing children and to ignore contributory negligence on part of the injured. I always thought the phrase ‘acts of God’ was a rather mild one. The prophets and the apostles had an even more energetic concept of the Deity. They would not have said that the Lord acted — they said the Lord smote.

Q. “But, Mr. Edwards, your whole attitude is abhorrent to the modern mind. We refuse to accept a terrifying —”

A. “All right, then — which is the more terrifying, a Deity who visits affliction and sends disease, pain and death — or the situation proposed by liberal theology of human beings caught in an inexorable, impersonal maze of the machinery of natural laws. Some by reason of chance or agility are able to prolong their life for a brief space, but sooner or later all are to be crushed, some suddenly, others slowly succumb to lingering injury. And all the while the only thing that the benevolent liberal deity can or will do, is to offer encouragement so that the harassed humans may for a little while longer side-

step their fate or more patiently endure their sufferings. Somehow I believe it is preferable to fall into the hands of an Angry God, who may lighten the punishment. I am also afraid that a deity who is unable to punish, may also prove unable to bestow benefactions. I fear the situation will not be ameliorated by those tenderhearted persons who would depose the Almighty to save Him from a charge of misrule. Nothing can be gained by the drift from Calvinism to a mushy faith. The anxiety which the liberal shows over divine morality is quaint to say the least. It has become the liberal's great concern to reach up and pluck beams and motes from the Eye of God."

Q. "But, Mr. Edwards, our deity is only guilty of the sin of omission — yours is guilty of commission."

A. "Your difficulty lies in the fact that you consider sin and judgment as matters to be dealt with *inter pares*. In assuming a parity of status and obligation you have arrived at the nadir of anthropomorphism. I don't think that the definition of sin — any want of conformity unto or transgression of the law of God — is broad enough to allow an indictment of the Almighty. If you can inform me of any principle of logic whereby a king in an absolute monarchy, whose will is the law, could be found guilty of treason, I shall be willing to discuss further the question whether God is the author of sin. Otherwise we can consider the subject closed."

Evidently the reporters decided not to press the point, since they followed a new tack.

Q. "I understand, Mr. Edwards, that you strongly advocated predestination or some other form of fatalism? I imagine that you are quite proud that a number of eminent scientists have referred to determinism as scientific Calvinism."

A. "The Sage of Geneva has been the recipient of much invective and many slurs. But to call evolutionary determinism 'scientific Calvinism' was the most unkindest cut of all. I resent the coupling of the terms, fatalism and predestination, in a common classification, although not for the reason that usually prompts such resentment. Many timorous Presbyterian clergy of the present day endeavor to distinguish them by defining predestination in such a conditional and alternative fashion that I could hardly recognize it. The truth is that predestination, which is the very framework of Christianity, has a Medo-Persian consistency. Compared to predestination, fatalism is as putty. Fatalism is merely a conflict of forces with certainty presumed to be on the side of the stronger, but with the possibility that chance interplay and combinations may produce unforeseen results. Determinism improvises its score as it goes along. On the other hand predestination follows a plan made before the world began. Its schedule shows not only the station stops and unvarying times of arrival and departure, but also all wrecks and derailments. The Christian

doctrine of predestination conceives no alternatives. Each moment of time sees everything in the exact location that was fixed in eternity. The situation in the preceding moment was not effective in producing the pattern nor will the present affect the ensuing moment. There is no chain of causality."

Q. "But, Mr. Edwards, are you not infringing on the freedom of the will?"

A. "I thought I had disposed of that problem when I proofread a rather light volume which bore the same title. I had expected that during the last two centuries with all the bombast of psychological investigation somebody would have thrown more light upon the subject. However, I believe we can approach the initial stages of the problem by means of a parable. With that groundwork you can doubtless elaborate, if you desire. Let us suppose that an individual A is placed in a room and he sees two doors X and Z. It happens that door X is nailed fast shut — a fact of which A is ignorant. The other door Z will open upon the turn of the knob. Does the unrevealed barring of door X hinder A's choice? I grant it may hinder his exit — but not his choice."

The reporters showed no inclination to involve the simple illustration in further complications.

Q. "At this date, Doctor, aren't you willing to admit that the doctrines which you defended long ago were even then outmoded? When you pronounced your position impregnable, weren't your circumstances similar to that of the French when they built the Maginot Line? Even if it could not have been taken, the battle moved elsewhere and the position lost all present significance."

A. "Before I shall admit that my position was not strategic, I shall ask to what terrain has the battle shifted. I fear me that it has moved to Arnold's 'darkling plain, Swept with confused alarms of struggle and flight, Where ignorant armies clash by night.'"

Q. "But, Mr. Edwards, if people should consent to believe in predestination, would that not result in their losing all initiative in their struggle for good? If everything is decided beforehand, why exert any effort?"

A. "My young friend, I am afraid that you do not comprehend human nature. The doctrine of predestination is usually associated with two of its prominent advocates, Augustine of Hippo and John Calvin. Hence the words Augustinianism or Calvinism put us in mind of predestination. Certainly its ardent champions, Augustine, Calvin, John Knox, Stonewall Jackson, gave no indication of lack of initiative. Whatever will be, will be — may be given as an excuse for inertia, but it is never a cause of it. Moreover, I do not believe that inevitability occasions a lackadaisical attitude. Otherwise the certainty of death and taxes would stop all economic endeavor and restrict activity to eating, drinking, and merriment. I am afraid that

instead of bringing about an irresponsible lack of concern, a belief in predestination is usually so feeble in the minds of most persons that it falls short of accomplishing that confidence in providence that it should."

Q. "But, Mr. Edwards, why do you adhere to a doctrine that is so doleful and dismal? Isn't there enough sadness in the world without the burden of predestination?"

A. "I believe a New England poet once wrote: 'For of all sad words of tongue or pen, The saddest are these: It might have been!'"¹ How can you call doleful or dismal the only doctrine which erases those saddest words?"

Q. "Well, Doctor or rather Mister Edwards, I am afraid that we are not getting anywhere by poetic references and wise-cracks. If you want to sell your doctrine of predestination to the present age, you will have to disclose a physical basis for its existence. Can you proceed along that line?"

A. "I trow I can. At several points in my writings I touched upon a theory which I advanced that the universe was in every constituent atom being constantly and imperceptibly replaced. A few persons who afterwards gave it more than passing notice dubbed it continuous creation."

Q. "Quite recently we were reading of a theory of continuous creation propounded by Dr. Hoyle of Cambridge and his associates who are submitting the New Cosmology.² Was your speculation along lines similar to that?"

A. "Not exactly so. According to this Hoyle, who now charts the stars in their fixed courses rather than games of chance, the very nature of the universe requires continuous creation. Without crediting me with any prior patented rights in the theory, in his books *The Nature of the Universe* and *The Frontiers of Astronomy* he acknowledges that the idea in a vague form might go back rather far in the past, but he states that it is now possible to put that idea in almost precise mathematical form. The fact that the universe consists almost entirely of hydrogen — a state, which would be quite impossible if matter were infinitely old — brings to the fore an issue that can not be dodged. He remarks that hydrogen is being constantly converted into helium throughout the universe and that this conversion is a one-way process in the sense that hydrogen cannot be produced in any appreciable quantity through the breakdown of other elements. Hoyle regards continuous creation as the most satisfactory solution. He assumes that the appearance of this new matter is spread throughout the whole of space and that its average rate of appearance would be no greater than a single atom per year for a space as large as that occupied by a skyscraper and would be beyond detection by experiment. He states that the created material does not come from anywhere, but simply appears — at one time

the various atoms composing the new material do not exist and at a later time they do. He points out that this theory merely replaces an older theory which assumed that all the matter in the universe was created at some time in the remote past in one big bang."

Since Edwards was quoting from a well-known name in modern science, the reporters abandoned for the time their bored attitude and allowed him to continue without interruption.

"Naturally I was quite happy to hear from an unexpected quarter partial corroboration, however slight, of my views. That does not mean that I am not critical of important aspects of Hoyle's theory. I am certain that my own theory is superior. It is noteworthy that Hoyle expressed the expectation that much will be learned about continuous creation especially in connection with atomic physics. I beg to suggest that I have already taken that possibility into consideration. And in reflecting upon atomic physics it becomes readily apparent how unnecessary it was for Hoyle to use his imagination in assuming a gradual accumulation in some unknown manner of hydrogen atoms, when we already have in operation a method whereby continuous creation might be carried on just as imperceptibly as he supposes and at the same time accomplish any requisite change in the atomic constitution of the universe. Nor is it essential to imagine that quantitatively there are necessarily a greater number of ultimate particles of matter in the universe than there were at creation's first dawn. There may be or there may not be. I shall begin by asking that you recollect statements that you have frequently read or heard respecting many of the ultimate particles of matter, such as mesons, which have an existence of only fractions of millionths of seconds. If the existence of such particles is so exceedingly transient, may we not suppose that all of the ultimate particles of matter which make up the universe are in some degree similarly short-lived. There is such abundant opportunity for this to be so and it fits so well with the established facts that it is almost impossible to disbelieve it. Every photon of light is said to have a dual aspect — as a particle and as a wave or packet representing the area in which the particle may next be observed. This dual aspect is recognized as applying not merely to light, which is matter in its most refined form, but to every particle of matter in the universe whether it happens to be a constituent of a gas, a liquid, or a solid.³ I suggest that in all probability in this duality there occurs not a reappearance of the same particle, but its replacement by a newly created particle. Needless to say, the circumstances of these replacements of ultimate particles, whether they be at, near, or removed from the locations of their predecessors brings about the change in pattern of the atoms and molecules and may be sufficient to account for all physical phenomena great and small in the universe, even motion itself."

Eager to exploit any vulnerability in Edwards' reasoning one

of the reporters interrupted,

Q. "Why do you think it is more rational to hold that there is a replacement rather than a reappearance?"

A. "Well, in the first place, I call your attention to the fact that in general most of your scientists are quite happy to accept a theory that matter undergoes a metamorphosis — that matter or mass changes into energy and in turn energy may change into matter. They are willing to admit that a particle of matter might not continue as matter. I shall follow that statement with an explanation why the idea of metamorphosis is so eagerly adopted and why it is so superfluous. The heart of the scientist's creed was the conservation of matter. *Ex nihilo nihil fit*. 'That impious maxim of ancient philosophy', as Daft Davie Hume, who cherished impiety, had proudly termed it and quailed at the thought that it might ever be challenged by creation.⁴ Hardly less central was the conservation of energy. When it became apparent that both were missing beats, there was consternation. What, if creation could not be excluded after all, and Hume's dreaded suggestion in that regard should become reality. Then it dawned that the self-sufficiency of the material universe might be saved if matter and energy could be considered as interchangeable. Nothing would be lost and the balance maintained without supernatural intervention."

Q. "Well, aren't they interchangeable?" broke in a reporter.

A. "I would be willing to admit that there is possibly a half truth in the phrase 'the equivalence of matter and energy.' It is doubtless true that there is a harmony and balance, from which mathematical equations could readily be drawn. A pound of lead and a pound of feathers might be termed equivalent in that both depress the scale marker to the same degree. With regard to the concept of energy you need not read far in scientific journals before you are aware of a certain fuzzy texture in the discussions of energy. Some authors treat energy as a real thing; others readily admit that it has no objective existence.⁵ I would say that the counterfeit portion of the half-truth respecting the equivalence of matter and energy consists in the assumption that there is strictly speaking any such thing as energy. Energy in its modern streamlined guise is exactly what I termed mechanism when two hundred years ago I stoutly denied that there was any such thing as mechanism, taking that word to mean that physical entities act with respect to each other purely and properly by themselves. If the scientists are correct in referring to light or so-called radiant energy as matter in its most refined form, then the theory of the equivalence of mass and energy loses the significance for which it was advanced. If everything is matter, then the supposed metamorphosis is merely from inert matter into a finer inert matter, and the force which is supposed to energize the universe is not resident."

Q. "But, Mr. Edwards, you can't deny energy. It would be particularly preposterous for you as a clergyman to do so. Especially at this time when so many of the clergy are enraptured by the thought that some real scientists have actually admitted that matter should no longer be thought of as hard and brittle. By the addition of energy matter has almost become spiritual. Such concessions should be gratefully received and not brushed off."

A. "To me it matters not whether matter be grit or soft soap. I can only say that energy is not necessary for my philosophy. Probably you recall that some years ago there was published a book the title of which labeled war "The Great Illusion."⁶ Just as international violence was thus designated illusory, so I would call force of any sort the perfect illusion. Accordingly instead of assuming that in the transformation matter is followed by energy, I would say that each particle of matter is followed by an interval of nothingness. Talk of negative energy, Dirac's hole theory, positrons, the anti-proton which may draw a Nobel prize award, and the anti-neutron may ultimately bring about a comprehension of such constantly recurring intervals of nothingness. Centuries ago I declared that it was certain with me that the world exists anew every moment and that the existence of things every moment ceases and is every moment renewed. Instead of the parsimonious economy which hitherto has been attributed to nature, we seem to observe that it is beneath Divine dignity to move even the most elaborate organism a millionth of a millimeter from its location when it is possible to recreate momentarily each of its constituent particles at new intervals. If each ultimate particle of matter is followed by an interval of nothingness, it is clear that the next observation is a new replacement and not a reappearance of the old ultimate particle. It is not the same but a similar particle. The words remind us of the homoousia — homioousia controversy."

Q. "The what?" broke in one of the reporters.

A. "The homoousia — homioousia controversy, which was settled by the Council of Nicaea."

Q. "Oh, you refer to the little Greek diphthong that so unprofitably divided the Christian world?"

A. "Yes, but it was not an insignificant distinction. No more important one was ever drawn. When the substance of the Second Person of the Godhead was the subject of discussion, the distinction was not a light one. The poll between the party of Athanasius and that of Arius was the choice between theism and deism. Just as sameness rather than similarity was essential to orthodox doctrine in the theological dispute, so conversely I regard similarity rather than identity as necessary to a proper understanding of the atomic constitution of the universe. I would say that the decision whether the same electron reappears or is replaced by a similar electron would solve the difference between determinism and predestination."

Q. "But wait a minute, Mr. Edwards, before you expect us on faith to accept your theory of continuous creation by the constant replacement of ultimate particles, you forget that we are well aware of the structure of the atom. We know that an atom is a miniature solar system. We have seen pictures and diagrams."

A. "Helpful though those diagrams may be, I know and you should know of the fictitious character of the planetary model.⁷ As an aid to explanation it is often helpful, but we have no more reason to believe that it is a true facsimile of the atom than we would have to assume that the letters of the alphabet are perfect likenesses of the vowel and consonant sounds that spread through the atmosphere to our ears. Turning from atoms to electrons, I presume that you are aware that scientists do not attempt to build a model of an electron. Do not mistake me. I urge not less but more experimentation. Assume for that purpose the existence of gravity, the spin of the electron, the magnetic field, the positive and negative charges, but employ them as measurements or intervals to predict phenomena and do not ascribe the existence of the phenomena to them. The latter tendency more than anything else rendered childish the scientific thinking of the past century."

Q. "But, Mr. Edwards, do you still persist in denying the existence of energy in the light of all the modern discoveries in the realm of nuclear fission and the fact of atomic energy? Haven't you heard of Alamogordo and Hiroshima? Don't you know that all this was brought about by the release of the energy bound up in the nucleus of the atom?"

A. "All I know is that every physical phenomenon that has ever occurred in the universe whether it be the ceaseless molecular flux of the Brownian movement, the growth of a plant, an atomic explosion, or the far more powerful blast of a hurricane, amounts to nothing more than a change in position of the ultimate particles which constitute matter. If the replacements of those particles occur in practically similar pattern, we feel that nothing eventful has befallen. On the other hand, if the replacements radically and suddenly alter the pattern over a wide area, then a cataclysm has taken place. The chain reactions occasioned by bombardment of an unstable atom by neutrons and consequent release of other neutrons are in kind nothing more than a change in pattern preceded by crowding and imbalance."

Q. "Mr. Edwards, I am afraid that you are evading the question. You have asserted that there is no such thing as force or energy and then you employ illustrations in which you assume that your premise is correct. We want to hear your specific reasons for your denial of force or energy."

A. "My failure to reach the climax of my argument has been due to interruptions. Accordingly I shall proceed. As you recall, I

stated that each ultimate particle ceases to exist and is followed by an interval of nothingness. In so stating I differed from those who asserted that when the ultimate particle ceases to exist as matter, it was transformed into energy or force. I shall not stop with the observation that given constant replacements of the ultimate particles in the same or different locations all the events of the universe in changing pattern could be accounted for without the existence of any force or energy. Continuous creation in place would be all that would be required and that would not be a resident force. However, scientists prefer to persevere in their rat race to attribute to resident forces the power and dynamic which causes the universe to function. I shall go further and examine the concept of energy or force and ascertain whether it is adequate actually to perform the functions which scientists have so long assigned to it. I need not repeat the low estate into which the concept of causality has fallen. Likewise action at a distance has for years been looked upon with disfavor, but in order to sustain a mechanistic universe scientists have clung for dear life to such notions as gravity, centrifugal and centripetal forces. Nevertheless, the best scientific minds are now prepared to admit that macroscopic phenomena, however much they may seem to conform to the laws of causality, are incapable of supplying proof of it, since the macroscopic phenomena are nothing more than aggregations of phenomena of the microcosm.⁸ It is only when we go down to the atomic scale and endeavor to observe the microcosmic phenomena, which are the elementary processes, that we are in touch with the real physical processes which might present any claim to controlling the universe. Even there the mechanistic scientist will be disappointed. When he undertakes to examine the energy which he assumes binds together the atoms of the molecules, he will be able to convince himself that he understands the bond that unites the atoms of a heteropolar molecule, that is, a molecule the atoms of which have different electric charges. It is elementary physics, he will explain, that unlike charges attract. But it has been said that like charges repel and he is faced with the necessity of explaining the bond between the atoms of homopolar molecules, as for example, a molecule formed by two atoms of the same nature. This is no isolated enigma, but a fundamental problem basic to the whole concept of energy. Explanations have been advanced rather timidly and tentatively to account for the union in a homopolar molecule of two components each having the same electro-chemical properties which according to the laws of classical physics should fly apart. The suggestion has been made that the two particles may have probable density distributions, to use the language of wave mechanics, which overlap each other and thus there may occur an exchange energy."⁹ It is noteworthy that, when this explanation is submitted, the word mysterious is always employed and it has to be admitted that it is

entirely impossible to make physical representation of such interactions. The significant feature is that when we come to examine the expression 'exchange energy', we find that it is actually colorable verbiage of a mechanistic tinge employed to refer to the fundamental fact of the non-localization of particles in space, a situation in no sense dependent upon the existence of resident forces. One may ask, if the lack of localization of the ultimate particles is the proper explanation of the so-called bonding of the homopolar molecule, why should not the same non-localization of the ultimate particles be the best and only explanation needed for the varying arrangement of all particles that make up the universe. Attraction, repulsion, all the forces assumed to act within and between the particles are merely convenient terms to be used in predicting phenomena, but in no sense to be employed as an explanation of reality. The sum of the whole matter is that we have now gotten down to the point where we can test the truth or falsity of Huxley's proposition that 'the whole world, living and not living, is the result of the mutual interaction, according to definite laws, of the forces possessed by the molecules of which the primitive nebulosity of the universe was composed.' Having arrived at this basic area our discovery is that there are no forces there.

"You do not remember, but once long ago Presbyterians were accustomed to sing the following lines:

You all created were,
When He the word but spake.
And from that place,
Where fixed you be
By His decree
You cannot pass."

Possibly that utterance could be applied to electrons and atoms. Perhaps after all, creation is the better explanation for the location of every particle of matter in all the galaxies including our own. And an intermittent continuous creation would adequately account for all motion and change in pattern that could ever occur. It may be that when the advocates of the new physics speak of the lack of localization of the ultimate particle, they are talking my language. One of the best ways of losing localization is suddenly to cease to exist. I would go further and say that the only way that an ultimate particle can lose localization is by an intermittent state of existence and non-existence such as is possible solely and exclusively through continuous creation. Creation is to be found not through supposed resident forces in the thunder of fission and fusion, but in the still small voice of the Logos, which every instant throughout time bids each separate particle of matter to die and to live."

Q. "Now, Mr. Edwards, we hope that you are not suggesting that the laws of nature are untrustworthy. If there was ever any instance where natural law fell down, we certainly would have been

informed."

A. "Do you really think so? College professors, science columnists, popular writers could hardly be expected to desire to enlighten you of aspects unfavorable to their theses during a period of indoctrination. How many of you were ever told by your professors in school of the fundamental dilemma in which Natural Selection has been caught and which remains unresolved after a century of research? The chance variations which are presumed to have formed the initial stages of the evolution of a complex organ would of necessity most frequently be insignificant and often actually disadvantageous to the plant or animal concerned. Blind Natural Selection, acting upon the principle of the survival of the fittest, could not possibly have developed organs through ages of useless hindrance to their final complex form, when until such exact complete adjustment the intermediate stages were wholly valueless. To have maintained the evolutionary theory in that precarious poise requires an anti-intellectualism attainable only through blind and ardent faith. Small wonder that your professors did not enlighten you in that regard. It was purposely concealed from your eyes, just as a skeleton in the family closet is hushed and hidden from great-grandchildren. Even front rank scientists exhibit more fanatical devotion to the materialistic and mechanistic philosophy, which they have adopted as their faith, than do most religious zealots. No possibility of doubt is ever suggested and rather than show the fragility of their theories, they retreat behind a veil of mathematics. A few exceptions, for example deBroglie and the late von Neumann, are frank and candid enough to disclose and discuss the weaknesses in the scientific creed, but the great majority are far too dogmatic to expose their preconceived ideas to criticism. Few special pleaders at the petty sessions exhibit so great bias."

Q. "Mr. Edwards, we resent your effort to undermine our faith in our scientists. You seem to suggest that they are not intellectually honest. Such tactics on your part are just as dastardly as if you were endeavoring to weaken the confidence of the working people in their labor leaders. Furthermore, we doubt that you are in accord with the best thought of the times. You seem derisive both of nature and human intelligence. You should bear in mind the observation which has been made by one of Thomas Henry Huxley's scions, 'Nature will not longer do the work unaided. Nature — if by that we mean blind and non-conscious forces — has, marvelously produced man and consciousness; they must carry on the task of new results which she alone can never reach.'"

A. "Certainly the words quoted are well calculated to evoke a hearty Christian sneer. Frankly it would be difficult to conceive of any statement so utterly erroneous in all tenses and in every respect. Blind forces of the past did not produce the human consciousness of

the present and neither the forces nor human consciousness will chart the future."

Q. "If, as you imply, the universe is not automatic, the question arises why did your God employ such roundabout means to accomplish results — why was all the elaborate constitution of plant and animal life provided, when he could have brought about the final results by direct action leaving out intermediary steps?"

A. "Questions of that sort are about on a par with the inquiry why God created a trillion stars when the universe could have gotten along with a mere billion or less. Such questions arise from anthropomorphic thinking. After all there is no reason why God should not be as interested in having a muscle flex as in having an arm move — as interested in the symmetry of the tree's root system as in the etching of a trunk, branches and twigs against the sky. If we have to correlate the Divine Mind with human intelligence, let us compare it with some human mentality which is not burdened by realization of incapacity or fatigue. A child, who had hardly ceased to reach for the moon, was given an electric train to play with. He was not satisfied to sit back and watch the train of cars move at the flick of the switch. Grasping the engine in his fist he guided it firmly along the tracks. Automation had slight interest for him."

Q. "But, doctor, the very regularity and uniformity of the processes of nature prove that they are automatic."

A. "Why should regularity and uniformity in the processes of the universe be taken as indicative of the rule of impersonal force? You reach that conclusion by comparison of machine made articles with hand-made craft. Regularity and uniformity may be the best evidence of arbitrary rule."

Since the efforts to put Edwards on the defensive had proved singularly unsuccessful, one of the reporters shifted suddenly to eschatological fields.

Q. "Now, Mr. Edwards, would not one living in this Space Age find it difficult to believe in a physical heaven? We can't go back to a belief in a paradise suspended in the sky somewhere above the clouds. Our telescopes have found no nook or cranny for its location. Now, don't misunderstand me: I am not necessarily denying immortality or a future life."

A. "I am afraid that your distinction between a physical and a non-physical or spiritual heaven is not clearly comprehended. I fear that one might experience as great difficulty in understanding you, if you would undertake to describe what you mean by a non-physical heaven, as you discover in comprehending the city four-square with jewel gates and streets of gold. Whatever objections there may be to a physical heaven, lack of room in and beyond the universe is hardly a valid one. Even if one were confined to the space occupied by our immediate world, room for a thousand hea-

vens could be found in the interstices between the successive appearances of the replaced particles composing our universe. If necessary heaven and earth could alternatively coexist in the same locale. Don't accept this reply as gospel necessarily, but only add it to your list of possibilities."

Q. "Mr. Edwards, I see that you are recurring to your theory that the ultimate particles of matter are constantly being annihilated and replaced. Will you not admit that compared with the explanation of classical physics your solution is hard to visualize?"

A. "On the contrary, I would say exactly the opposite. I have alluded to the shortcomings of the planetary model of the atom and to the fact that scientists have thrown up their hands when the desirability of a physical representation of an electron is suggested. As to my theory, a working model in two dimensions has been operating for more than half a century. I refer, of course, to the motion picture. Projected on the screen we see a picture composed entirely of small dots. The aggregations of dots take the form of animate and inanimate objects. In rapid succession these dots are replaced by others in slightly different locations. As a result in the eyes of the spectators the objects move and almost live and have their being. Surely one could not ask for a pattern to demonstrate more clearly that my theory is workable. The same pattern can be maintained without retaining the same identity. My philosophy is one place where the old saying goes into reverse and form prevails over substance. My theory is in harmony with all phases of physical phenomena, the duality of particle and wave, the intermittent dance of the electrons, the molecular flux underlying the Brownian movement, the broken dotted line traced by the particle in the cloud chamber — all proclaim the cadence of an intermittent world created by replacements of its ephemeral particles."

Again a reporter spoke up.

Q. "Just to change the subject, Mr. Edwards, you are getting a little deep for us. What are your views on heredity? You know they used to say that you were Exhibit A-1 in genetics. You are aware that you were the progenitor of — how did it go — one vice-president, ten college presidents, six senators, etc. Have there been any more illustrious additions?"

A. "I am sorry that I haven't been able to keep track. But on the subject of genetics I might say, although this is a means of returning to my former subject, that the germ cell is not immortal. Every atom, every molecule, every organism is but a combination of ultimate particles, each of which has an ephemeral duration, so that the continued identity of any physical organism is entirely illusory."

Q. "Mr. Edwards, you were I believe one of the early presidents of Princeton University."

A. "In my term of office it was known officially as the College of New Jersey."

Q. "Wouldn't you have been delighted in those days, if you could have included in your faculty a professor such as Albert Einstein, who spent his latter years at Princeton?"

A. "I am afraid that, even though he was the putative father of the atomic bomb, I could not have tolerated his presence. The world had been led to believe that Albert Einstein personally distributed the blue prints to each worker in the atomic laboratory. Actually his contribution consisted in signing a round robin addressed to an impressionable president. Vegetating on the campus and resting on the laurels of others —"

Q. "Why, Mr. Edwards, I am surprised. Don't you realize that relativity is the last word in the deanthropomorphization of nature and that every knee should bow at the magic symbol mc^2 which signifies the energy of the atom?"

A. "I believe that I have made myself clear as to the matter of energy. Equations prove nothing but that a harmony and balance prevail throughout the universe. Einstein realized that extent of space and duration of time had always constituted prime enigmas that stood in the way of an integrated mechanistic system, so as did Alexander with the Gordian knot he fastened upon a rather crude method of eliminating the problem by reducing time to a mere dimension and buckling back space into a curve. Rather than accept the theory of curved space, I had as soon believe that a curved mind concocted the theory."

Q. "But, Mr. Edwards, did not Professor Einstein receive universal acclaim and his theories complete acceptance?"

A. "Approval was widespread, indeed. The so-called intellectual classes with minds rendered flabby by a regimen of psychology and social sciences swallowed his theories whole and were content, when he blandly informed them that, if proofs were required, they could be found at a distant point in the perihelion of Mercury."

Q. "But don't you realize that by reason of Einstein's demonstration that matter and energy are interchangeable we now know that the universe has a spiritual significance?"

A. "On the contrary, Einstein was aiming at a sort of pantheism. He was intent upon shoring up a self-sufficient universe by supplying it with an additional resident force of metamorphosis. All the agitation regarding matter and energy was directed at preserving their conservation and was in fact a trembling for the ark — *ex nihilo nihil fit* — the hallowed treasure chest of science."

Q. "But, Mr. Edwards, you wouldn't presume to belittle the achievements of Albert Einstein, would you? You know that figures talk and that Einstein was the mathematician *par excellence*."

A. "I must say that mathematics is too blunt a tool for a phil-

osopher. When dealing with ultimate particles which are too short-lived to be added, too ephemeral to be multiplied, and too evanescent to be divided, mathematics is a weak reed with which to measure. Figures on occasion have been known to lie. Accountants have a term for it — compensating errors. At times equations have been found to be in balance but still to be definitely incorrect. Occasionally such a situation occurs in normal computations. However, when one deals with unknown or unknowable factors, its occurrence must be most frequent. Einstein's mathematical computations were efforts to explain natural phenomena. The public has been led to believe that they were the tools with which atomic discoveries were made. Even if that were so, we could not be certain that his equations represent reality. For centuries the apparent exactitude of Ptolemaic astronomy seemed to have been demonstrated. Based upon its complicated system of epicycles medieval mariners sailed with no greater margin of error than is discounted in proving relativity. If we say that matter and energy are interchangeable, we may be deceived by the fact that merely harmony and balance exist. Imagine if you will an army corps going through elaborate maneuvers. One might assume that the orderly position of each individual trooper of the tens of thousands in the far-flung array was due to the interaction of forces between units attracting or repelling them and causing them to advance in conformed groupings. Doubtless based upon the intervals that the units took, the speed and convolutions of their marching, a trained mathematician could work out the most elaborate formulae and equations from which could be deduced the alignment of each squad, the velocity of each tank, and the range of each mortar. The mathematical computations would be true and beautiful and would seem to justify the interactions of invisible forces as the causal groundwork for the systematized arrangement. However, in that case we know that this was mere semblance and that each footsoldier and caisson moved independently without attraction or repulsion by other units or groups through any action at a distance. In fact we realize that the cadence and convolutions are due to nothing other than a prearranged plan of the commanding officer formulated in advance before the mobilization began. Unfortunately for those who would fain proceed at a peradventure, the nullifying of causality did not eliminate certainty. It is rather amusing to listen to those who imagine that the principle of indeterminacy means that there is a prospect of chance entering into the universe. On the contrary, the overthrow of determination compels the recognition that not chance but the arbitrary, eternal and immutable decrees control. Annihilation rather than chance's chaos would be the alternative to cosmos. The newest physics is most consonant with the oldest theology. In the light of what we now know of the constitution of the universe, in order for it to fit together and escape being without form and void

the sine qua non is an all-comprehensive foreordination. In contrast, how utterly vapid is the liberal concept of an ideal deity aspiring in some way or other dependent upon human cooperation to keep the world on an even keel."

Q. "But, Mr. Edwards, it is almost insolent for you to attack the man who is recognized as the outstanding genius of the space age."

A. "If he is so recognized, you should know. An adulatory press boosted him into the spotlight. Just as the press gave Marilyn Monroe a monopoly of pulchritude, so you bestowed upon Einstein a corner on intelligence. Perhaps it is too soon to dispel the aura and we should have waited for the halo to fade. However, among the more discerning minds in science and philosophy there has long been the recognition that the proofs alleged to corroborate Einstein's theories could be adequately accounted for by other factors.¹⁰ Relativity to the extent that it is at all relevant can relate only to a relationship between particles and their intervals of existence. The concepts of motion, direction, of mass increasing with speed must be dismissed as fictions. As a matter of fact motion actually exists nowhere except in the fashion that we discern on an advertising sign when light seems to move across its face by the successive activating and deactivating of the hundreds of electric bulbs composing it. It would serve as an excellent chart for representing the uniform speed of light. If mass appears to increase with velocity, it is only because there would be more replacements of particles at extended intervals per second, and not on account of any theoretical transmutation of energy into matter. Intermittent replacements of particles in varying patterns and timing, some overlapping and some at a distance, could explain all the manifestations of matter from the densest solid to the rarest radiation, far better than the theoretical equations of relativity. But you would not even consider this or any explanation which does not pretend to be automatic. The suggestion has been made that Einstein's claim to fame lies not in the accuracy or truth of his theories but in the mere fact that these theories have challenged accepted ideas and have caused the human race to exercise its brain power by thinking. In other words, the symbol whereby he and his theories are to be remembered is the mental dumbbell. I am afraid that my own appraisal of Einstein is even less flattering. I regard him not as an exponent of progress but of retrogression. Anyone who would entitle his most popular book *The Evolution of Physics* betrays mid-Victorian tendencies. A fondness for the term evolution definitely dates one as possessing an antiquated point of view. If you mouth the word evolution as many of your teachers and preachers do, you do but advertise an outworn philosophy. It is difficult to imagine in the light of twentieth century knowledge how anyone endeavoring to describe the processes and phenomena of the physical

universe could employ a word quite so ill-conceived and unrealistic as the term evolution.

Q. "But, Doctor or rather Mister, we thought that the attitude you now exhibit had been laid to rest decades ago at the Scopes trial at Dayton, Tennessee."

A. "Oh, I recall hearing of the incident to which you refer, but I wouldn't call it a landmark in cultural or religious controversy. It was a debate between an unusually sincere Democratic politician and a windy city mouthpiece. The politician missed the issue when he assumed that he was called upon to defend Moses, when he should have been ridiculing Darwin. His opponent, on the other hand, being representative of the lower ranks of his profession, would have been definitely out of place in any serious cultural discussion."

Q. "Now, Mr. Edwards, why bring that subject up? Hasn't religion something more practical to discuss in its own field than to attempt to invade the domain of science?"

A. "I know of few things more practical. The theory of evolution has educational, religious and even political implications. Evolution has so monopolized the educational field that there is hardly a subject which is not either dyed or tinted by it. Ethics is based upon the herd habits of gregarious animals. So it is likewise with sociology and other social sciences, which as easy credit courses are most popular with undergraduates. These with psychology constitute the shallows in which are spawned the eggheads. You hear much today of the financial plight of colleges. But what would the condition be, if it should dawn upon the graduates, who have been ground out of the educational mills with no other seasoning except evolution, that after all evolution might be unreal and that they were entitled to refunds of their tuition? How many schools could escape bankruptcy?"

Q. "But come now, Mr. Edwards, how can you disprove evolution?"

A. "No one produced a valid objection when I asserted that the refutation of causality meant the death of determinism. The passing of causality will just as surely be fatal to evolution. It will cut into bits those chains of development which were fondly believed to lift homogeneity into heterogeneity. I was speaking about the religious implications of evolution. After Darwin had expounded his doctrine, Henry Drummond fell in line with a book entitled *Natural Law in the Spiritual World* with the thesis that the scientific principle of continuity extended from the physical world to the spiritual. However, it is now evident that continuity is nonexistent, both in the sense that the so-called laws of the macrocosm do not extend to the microcosm, and in the more absolute sense that matter is discontinuous in time as well as in space. No one contributed more than Drummond to the intellectual deterioration of preaching in Scotland

or elsewhere. The addition of a little of Drummond's thoughts and perhaps a dash of R. W. Emerson are frequently sufficient to render mawkish what might otherwise have been a commendable sermon."

Q. "But you are not denying the rule of laws, are you?"

A. "In my vocabulary laws are statutes, edicts, and acts. I do not comprehend a self-executing law. Therefore the whole concept of the so-called laws of nature is folly. But I must hurry on. I believe I said that evolution also had political implications. Karl Marx was a most ardent disciple of Darwin. Marx offered to dedicate the English version of *Das Kapital* to Charles Darwin. Read any Soviet educational literature and you find that Darwinism is the corner stone of its theory of dialectical materialism. We have been told that destalinization had a disconcerting effect. What would be the effect of dedarwinization? Let me assure you that it would be more than a stutter. It would be a shattering of the entire structure."

Q. "Now, Mr. Edwards, I think you are being unfair both to Charles Darwin and also to those mistaken but dedicated spirits who, incensed by social injustices, have been led by sacrificial zeal to join the communist crusade."

A. "So far as the card carrying comrades and their partisans are concerned, I believe that you are mistaken in assuming that their motivation is altruistic. Napoleon once remarked that the secret of the enthusiasm of the Grand Army lay not in patriotism or hero worship but rather in the fact that each footsoldier carried in his knapsack an attainable marshal's baton. I think that you will find that your dedicated communist imagines that he carries in his brief case a commissar's commission."

Q. "But, Mr. Edwards, it seems to me that you are suggesting throwing out the baby with the bath. We know that communism is only a perversion of Darwinism and Charles Darwin can not be held responsible"

A. "Even though its name is Charlie, out go both baby and bath. Communism is not a perversion but the most logical outgrowth of Darwinism. Although communism's rootlets draw strength from social injustices, we must recognize that the tap root is Darwinism. Far deeper than the economic hard-pan of Marxianism or the political ground of Leninism the system is rooted biologically in Darwinism. If a sharp blade in an underground thrust can sever that philosophical tap root, in a short space the system's political flower and economic fruit will wither on the vine."

Q. "If so, how would you suggest that this philosophic upheaval might be accomplished? You seem to propose a revolution against evolution. Don't you know that exactly a century ago Charles Darwin gave the world the great principle of natural selection. How do you expect to undo a belief that has been solidifying for the last hundred years?"

A. "My reply would be emancipation through ridicule. You know that according to the definition of evolution matter passes from an indefinite incoherent homogeneity to a definite coherent heterogeneity through resident forces. Now, if we can substitute for the principle of continuity, upon which evolution depends, the principle of discontinuity which I suggest, that is, a failure of uninterrupted sequence, evolution is dissolved into thin air. If each electron exists for a brief moment and then is replaced by a new particle, there is no continuity through which resident forces may operate. The chain of evolving substance has been slashed into thousands of vanishing pieces per second. No longer are there merely missing links. The whole chain has disappeared. That elevator which was supposed to be raising mankind and the universe at large to new heights is without visible means of support. Formerly it was urged against Darwin that matter was too stable to be capable of the change he suggested. Now we can urge with greater confidence that matter is too unstable and ephemeral to support the theory which demands a continuity that cannot be found."

Q. "Do you actually consider that ridicule is a dignified weapon to employ against either communism or evolution?"

A. "My only interest is that it is an effective one. The backbone of the communist movement is youth together with older individuals who have retained immature minds. Youth cannot endure ridicule."

Q. "Even so, do you expect to laugh off evolution after it has now had a start of a century's growth?"

A. "Well, when two centuries ago I advanced the principle of discontinuity and continuous creation, I believe I prescribed the antidote. You know that not infrequently the finding of an antidote precedes the discovery of the poison. At any rate the poison and the antidote are now in the maw of the world at the same time. Let us await the outcome."

Q. "Now, Mr. Edwards, have you forgotten how much we owe to Darwin? He symbolizes the scientific spirit and has ushered in the age of progress."

A. "During the past hundred years progress in discovery and invention have been enormous, but to this Darwin, deluded by his dream that a rationale for evolution was found in pangenesis, contributed not a whit.¹¹ To attempt to link Darwin and space rockets is grotesque. On the other hand during that hundred years Darwinism has made extensive contributions to philosophy and to theology. And with respect to both of those subjects that century may most appropriately be called the years that the locust hath eaten. It is a baseless contention that evolution and mid-Victorian philosophy have been responsible for the material inventions of the age. Darwinism was merely contemporary and in no sense fathered an invention. Merit by association is even more fallacious than guilt by associa-

tion. There is a fish known as the pilot-fish, which attaches itself by a sucker to a shark and in that manner ranges far and wide throughout the sea. To imagine that the pilot-fish gives direction or any aid to the shark is fanciful. The shark would be better off to drop the pilot. After all the shark intellectually is frequently the practical mechanic who works out the invention by the slow process of trial and error. We may come to realize that the so-called creative individuals are merely assembly line mechanics along the chain of pre-ordained events. We make too great distinction between the works of man and the so-called forces of nature. Stalactites and stalagmites are artifacts also."

Q. "You don't place much emphasis upon human responsibility, do you, Mr. Edwards?"

A. "Now I wouldn't say that. Rich discovery in the realm of physics has given us ground to deny causality, but the barren field of psychology has afforded us no basis for rejecting responsibility. Paul, though he had acted as a clothes-horse, felt as full culpability as those who cast the stones at Stephen. To those who querulously complain of their lot the same apostle indicated that the short, proper and sufficient answer was: 'Shall the thing formed say to him that formed it. Why hast thou made me thus.'¹² One cannot doubt the potter's power to make of the lump of clay a vessel unto dishonour. We are clay but probably more. Recognition of spirit is evidently as essential in the realm of discontinuity as it was in the now discredited concept of continuity. The spirit can at least consent and concur. Quite probably responsibility has a deeper than surface significance and rests upon reaction rather than causal action. Human law does not concern itself with mere guilty intention, unconnected with any overt act or outward manifestation. But the law of Christ, more just and more consistent with reality, condemns malice and lust independently of conduct. It was only by the Creator's grace that we were not directly identified with the moral catastrophes of a grosser nature which are foreordained to occur in the universe. Successions of events are presented for us to admire or detest. If in some instances we react in one manner when we should have responded in opposite fashion, our responsibility is not lessened by the fact that the Deity knew in advance what our reaction would be. To conclude that predestination and human responsibility cannot coexist is the mark of a one-track mind which ignores logic as well as foreknowledge and omniscient power. One man is repentant. Another glories in his shame. Both thereby admit responsibility. A third displays no solicitude and we refer to him as irresponsible, since he ignores responsibility. But the term irresponsible is rarely if ever used. We shall have to learn more of mind and spirit before we can rule responsibility out of our philosophy."

Q. "Returning to the subject of evolution, even if all the insinua-

tions you have leveled against it were true, will you not admit that the theory of evolution has been on the path of progress?"

A. "In the same sense that a detour into the Slough of Despond was on the way to the Heavenly City."

It was observed that Edwards spoke in almost modern fashion and had abandoned the more elegant form of eighteenth century expression. A certain tartness sharpened his speech. Readers of his works would have recognized that his inkhorn had contained iron but had a minimum of acid. Now he was able to exhibit a sarcasm which would not brook folly. Possibly two centuries in heavenly places had enabled him to attain the divine quality of showing himself froward to the froward.

Q. "Mr. Edwards, I am afraid that you are so intolerant on the subject of evolution that you would want to ban the teaching of it in the schools."

A. "No, I would not want to see the teaching of evolution enjoined. It would not be a case of injunction but rather of mandamus. The schools should not be ordered to refrain from teaching evolution, but they should be affirmatively commanded to teach that there is no such thing as evolution."

Q. "I see that you are no advocate of academic freedom."

A. "The educator should remember the pit from which he was digged — the slave pedagogue — and teach what he is told to teach. Frankly evolution has no survival value. As one also of your own poets has said, "Ring out, wild bells."¹³ This time the bell tolls for the Darwinian myth and its attendant mid-Victorian folklore. A belief in evolution will not long linger in any well-informed and unprejudiced mind. This applies not only to the specific features of Darwin's theory but also to the broader concept of evolution as development by natural causation through whatever process. A century of hogwash is almost enough."

Q. "Now, Mr. Edwards, don't you think that it would be possible for you and your opponents to arrange an armistice in this logomachy and join forces to promote religion and solve the ills that plague society?"

A. "Do you think that Elijah after Carmel was inclined to fraternize with the nature worshiping priests of Baal? Why should I favor federation with materialists when I can hack their theories and influence to bits by the bonnie banks of Kishon?"

Q. "But Mr. Edwards," began one of the reporters. "On this occasion, the hundredth anniversary of the presentation of Natural Selection, when all the world delights to honor Darwin, you wouldn't want to be the spectre at the feast, would you?"

The reporter stopped short as he realized that the metaphor was unintentionally too barbed. Edwards winced as the point came home to him also. In the heat of controversy he had almost regained

mortality. Now he paled perceptibly.

A. "I would — I would, indeed," he uttered. "You choose this time, when predestination has been proved to you, to commemorate the High Priest of Chance!"

Then he faded from their midst. Some said that it was at the moment when the clock in the church steeple across the street sounded the stroke of midnight. Others reasoned that he had become so agitated that the refined particles, of which his shade consisted, were so activated that they vibrated at a rate higher than the speed of light, so he vanished from their sight.

One of the reporters muttered, "I hope the old codger was not correct, that's for sure. But, if he was, I am afraid that his was the most significant pronouncement of the Geophysical Year."

CHAPTER IX

Epilogue

THE ABRUPT DEPARTURE of Edwards doubtless left a number of questions unasked and certain others incompletely answered. There is one question which we may be sure none of the reporters would have asked, although some reader may be pondering it. The suggestion has been made that Edwards through extreme hyper-Calvinism had overstepped orthodoxy, leaned over backwards, and fallen into heresy. The reporters would have been neither sufficiently interested nor competent to have pressed that point. Possibly any discussion of it would necessitate a comparison of Edwards' views with the Reformed Standards. Who in this day could readily find a copy of The Confession of Faith of the Westminster Assembly of Divines, or, if the volume be procured, could turn to the appropriate chapter and paragraph?

To avoid delay attention is directed to the chapter entitled "Of God's Eternal Decrees": "God from all eternity, did by the most wise and holy counsel of His own will, freely and unchangeably ordain whatsoever comes to pass: yet so, as thereby neither is God the author of sin, nor is violence offered to the will of creatures, nor is the liberty or contingency of second causes taken away, but rather established." In the reporters' questioning many phases of the article were touched upon, but we shall now focus attention upon a query whether Edwards' repudiation of causality and denial of mechanism can be reconciled with the Westminster Divines' affirmation of the "contingency of second causes."

In the first place we may recall that Edwards himself felt that there was no variance between his views and the doctrines of the Westminster Assembly, since he expressed a willingness to subscribe to the Confession of Faith. In the second place, it must be recognized that the function of the Confession of Faith is in a measure similar to that of a governmental administrative regulation. The one is prepared to explain the provisions of a Federal statute; the other is designed to interpret the doctrines contained in the scriptures. In the case of each it frequently happens that in order to clarify the explanation or interpretation it is necessary to go back to the statutory or Biblical language, the elucidation of which has been sought. In the Confession of Faith this reverse action was evidently anticipated, for each phrase and clause is buttressed by scriptural proofs citing chapter and verse. An examination of the scriptural proofs,

which parallel the clause respecting secondary causes, reveals that the references are for the most part drawn from texts dealing with the trial and crucifixion of Christ and emphasizing the fact that the inevitability of the event did not relieve the actors from guilt. Among other texts we find the familiar verse from Proverbs xvi, 13: "The lot is cast into the lap; but the whole disposing thereof is of the Lord." In all the citations the contingency referred to, if mentioned at all, related to responsibility rather than to possible alteration in the schedule of foreordained events.

In the third place, if we test the phrase affirming the contingency of second causes by its context, we find that it is followed immediately by a paragraph to this effect: "Although God knows whatsoever may or can come to pass upon all supposed conditions, yet hath He not decreed anything because he foresaw it as future, or as that which would come to pass upon such conditions." It is hardly conceivable that any language could have been employed which would more effectively invalidate the conjunction "if," unless it would be Christ's own words: "For it must needs be that offences come, but woe unto that man by whom the offence cometh." That is not to say that all mystery has been banished from the Confession, or from the Scriptures, or from any other situation in the universe. The chief difference between the mystery of predestination and the other mysteries that universally abound is that it is one mystery to which the generality of folk do not desire to accomodate their minds. We live in a marvelous as well as a mysterious universe where neither force nor motion is required to make it function. Almost everthing seems possible save one. That only impossibility is that there should ever be any incident in time or space purposeless or without design.

Under all the circumstances there appears no basis for challenging Edwards' orthodoxy. Of his philosophy we may truly say — it represents the best thought in Presbyterianism today. Furthermore, when all the entries over the centuries have been considered, it will be properly adjudged that the most nearly correct answer to the riddle of the universe had been submitted by Jonathan Edwards.

Perhaps an apology is owed to those readers, who although forewarned by the prologue, imagined that they would peruse a stereotyped biography. They may level the accusation that the writer has taken the flat top of the tomb at Princeton as a platform to recite a skimpy sketch of Edwards' life and then to launch from it a scattering attack upon modern education and current theology. They may charge that under a cloak of pious verbiage a dagger has been thrust in an attempt to sever the nerves that carry the impulses from the scientific mind. Needless to say, we deny the allegation, but we maintain that, even if the accusation were justified, there is no area where debunking is so long overdue.

At any rate, we had thought that our intention had been made

plain. We had come not to bury Edwards, but to praise him. It was accounted high praise for the Earl of Morton, when standing before the corpse of John Knox, to have said, "There lies he who never feared the face of man." Generally the proponents of Calvinism, whether John of Geneva, John of Edinburgh, or Jonathan of Princeton have inspired greater trepidation than they have experienced. Derision has been cast upon their doctrines, but it is usually a hollow laughter masking a fear that after all they might be true. Repetitious assertions that Calvinism is dead fail to conceal an anxiety on the part of the speakers. The old story is in point of the man who received a telegram advising of the death of his mother-in-law and inquiring, "Shall we enbalm, cremate, or bury." The man hastened to wire in reply, "Enbalm, cremate, and bury. Take no chances."

We do not damn Edwards' memory by the faint praise of asserting that his message was a mistake, but that his good life and character endure. Christ has been called the finest product of the upward surge of the race by those who despise his doctrine. The servant can expect no better treatment than his Lord. But the sentiments may properly be resented in both instances.

A reasonable tribute to Edwards' memory is to advertise the same intellectual food that sustained him. There was an old-fashioned custom requiring that a funeral should be celebrated not only by a religious ceremony and a somber recital of the life story of the deceased, but also by a less doleful gathering of neighbors and relatives to partake of meat and drink at the expense of the estate. We have spread his philosophic bread and poured his doctrinal drink. The table has been free to all. We have, however, claimed the right to supervise the seating about it. Some important characters, who presume to occupy the chief seats at all intellectual gatherings, have been placed well below the salt. At the banquet we have discussed not only the events of the decedent's life, but we have indulged in the more practical act of appraising his legacies. Their value is enhanced by the fact that they have been accumulating for almost two centuries, far beyond the customary period, with little consumption. The distribution of such intellectual trust funds should restore a proper balance to the philosophical world.

The Geophysical Year has come and gone. Its timing was obviously intended by some as a memorial to Charles Darwin, but the laudation was relatively and refreshingly meager. A few "how much we owe to Darwin" books dropped from the presses. A commemorative voyage had been projected to follow in the century old wake of the Beagle. But if the anchor was weighed, it escaped the headlines. It is now possible to open a newspaper or magazine without encountering the self-complacent countenance of Albert Einstein. Probably he will prove to have been one of those personages who used up all their fanfare in their lifetime leaving little to roll down the

corridors of the future. On the other hand, if we would comprehend the true future trend of philosophy, the lengthening shadow of Edwards' hand points the way to those of us who did not even realize that Jonathan also was among the physicists.

Some may resent the lack of veneration accorded Darwin, Huxley, Einstein, and others. But, if beneath their gowns and hoods we discern the cap and bells, can we be blamed for calling them up to make sport for us? Humor is an important ingredient in the pursuit of happiness, which with life and liberty is among the unalienable rights. Situations have been handled with gloves where brass knuckles might have been warranted. We beg anyone to search the foregoing pages and point to any instance where a railing accusation has been made. Tolerance has been our middle name. Whatever has been written has been without rancor. We only ask that this small brochure be accepted for what it is — a contribution to better understanding — in every sense of the word.

F I N I S

NOTES

Chapter I. Prologue.

1. Dugald Stewart had stated: "There is, however, one Metaphysician, of whom America has to boast, who, in logical acuteness and subtlety, does not yield to any disputant bred in the Universities of Europe. I need not say that I allude to Jonathan Edwards." Possibly the reading of this and kindred eulogies so exasperated Oliver Wendell Holmes that he included a Chapter XI in his "Pages from an old Volume of Life," where he lashed out at Edwards in the language quoted in the text.

Chapter II. Heredity.

1. The Fruit of the Family Tree. (1924) Albert Edward Wiggam.
2. The Proper Bostonians. Amory. p. 37.
3. Collections upon the Lives of the Reformers and most eminent Ministers of the Church of Scotland. Vol. II. Robert Wodrow.

Chapter III. Environment.

1. The God of the Witches. (1933) Margaret Alice Murray.
2. 1 Samuel 15 -- 23.

Chapter IV. Education.

1. Flying spiders are for the most part, although not exclusively, spiderlings. In view of this immaturity, the stock of eggs imagined by Edwards would hardly prove a sufficient insurance against the extinction of the species by the action of the west wind. Edwards happily outgrew this attitude of assurance so characteristic of the statements of theoretical scientists.

2. Ola Elizabeth Winslow in her biography of Jonathan Edwards (1941) devoted some five pages (81-85) to the episode and suggested that Edwards was of the mental type which should have been favorably inclined toward the Anglican movement. This assumption is hardly borne out by the fact that at no time did Edwards ever exhibit a tendency in that direction.

Chapter V. Ministry.

1. Luther entered upon the study of law at Erfurt in 1505. Calvin went to Orleans to study law in 1528.

Chapter VI. Missionary.

1. In a letter of January 24, 1881, addressed by Darwin to A. DeCandolle he made the comment regarding the word "purpose": ". . . . I vowed I would not use it again, but it is not easy to cure

oneself of a vicious habit." More Letters of Charles Darwin (1903) Vol. II, p. 429.

2. In writing to Asa Gray, Darwin remarked that "the thought of the eye made me cold all over," and that the "sight of a feather in a peacock's tail, whenever I gaze at it, makes me sick!" The Life and Letters of Charles Darwin (1888) Vol. II, p. 90.

3. See The Philosophy of Jonathan Edwards from his Private Notebooks. Edited by Harvey G. Townsend (1955).

4. Scientific American. August 1954, p. 45.

Chapter VII. College President.

1. Pages from an old Volume of Life. Oliver Wendell Holmes, Chap. XI, p. 394.

2. Locke's An Essay concerning Human Understanding, Book II, Chap. XXVII.

3. Systematic Theology (1872) Charles Hodge. Vol. 2, p. 217.

4. The Revolution in Physics (1953) DeBroglie. p. 103.

5. Physics and Microphysics (1955) DeBroglie. p. 127, 129.

The Restless Universe (1935) Max Born. p. 159.

6. Encyclopedia Americana, Vol. 10, p. 607 contains the definition of Evolution as a "series of changes in which the nature of each step depends on what has preceded."

7. Life and Letters of Thomas Henry Huxley. (1913) Leonard Huxley. Vol. II, p. 67.

8. Life and Letters of Thomas Henry Huxley. (1913) Leonard Huxley, Vol. III, p. 364.

Chapter VIII. Ghostly Interview.

1. Maud Muller. John Greenleaf Whittier.

2. The Nature of the Universe. (1952) Fred Hoyle. p. 98, 99. Frontiers of Astronomy. Hoyle. p. 342.

3. The Revolution in Physics. (1953) DeBroglie. p. 178.

Matter and Light. (1939) DeBroglie. p. 225.

Atomic Physics (1935) Max Born. p. 77.

The Atomic Nucleus. Scientific American, July, 1956, p. 57.

4. Hume's An enquiry concerning human understanding.

5. In Encyclopedia Americana, Vol. 10, p. 332, reference is made to the fact that physicists have been led to speak of energy "as though it were a real thing, having an objective existence," and the following statement is made: "It is useful to think of it that way and convenient to speak of 'converting energy from one form into another.' In reality, however, it is no more a real thing than is momentum, or 'action' (which figures prominently in modern theoretical mechanics)."

6. The Great Illusion. (1910) Sir Norman Angell.

7. The Revolution in Physics. (1953) DeBroglie. p. 143.

Encyclopedia Americana, Vol. 2, p. 521a contains the remark that "with the replacement of Bohr's circular and elliptical orbits by the three dimensional vibration patterns of wave mechanics, atomic models look rather different . . ."

8. Physics and Microphysics. (1955) DeBroglie. p. 201.

Atomic Physics. (1935) Max Born. p. 89.

9. The Revolution in Physics. (1953) DeBroglie. p. 271.

10. Speaking of the scientific theories of the future, Hoyle in The Nature of the Universe (1952), p. 106, said: "Already it is fairly clear that the theory of relativity is not an ideal tool for dealing with this problem."

General Relativity is critically discussed by DeBroglie in The Revolution in Physics (1953), p. 96.

11. Pangenesis was a theory to explain heredity, proposed by Darwin, which has been conveniently forgotten by his idolizers. The theory assumed that each ovum and spermatozoon in most animals and each part capable of reproducing by budding in plants and lower animals contain an aggregation of minute particles or gemmules from all parts of the parents. Darwin labored patiently to put across this theory, but it failed to convince many, since obviously it would mean that the offspring of parents, whose ears had been amputated, should properly be earless. However, Darwin was not one to be deterred by the obvious. He had successfully sold to the public his equally vulnerable "Natural Selection," wherein he assumed that without teleology a complex organ could be developed through chance variation even though the gradual and incomplete stages of its development would always be useless and frequently disadvantageous and actually harmful. Nevertheless, Darwin found that he could not bank upon the loyalty of his followers for a second go around.

12. Romans 9: 19-24.

13. Tennyson is claimed by some to be the Poet of Evolution. If that be so and if we recognize the beginnings of the Era of Evolution in Darwin's prose and Tennyson's poetry, we can best characterize what ensued in philosophy by the poet's own words, "And after that the dark."

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R.

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